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Toronto Electric Commissioners

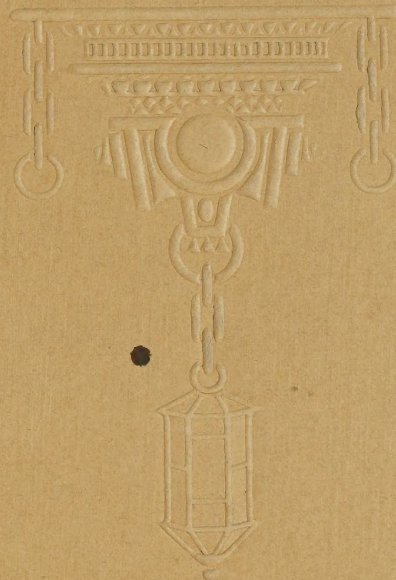
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Government  
Publications

# (The TORONTO HYDRO ELECTRIC SYSTEM)

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SECOND  
ANNUAL REPORT  
1912

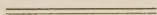






Government  
Publications

# THE TORONTO HYDRO-ELECTRIC SYSTEM



*THE SECOND ANNUAL REPORT*  
*OF THE*  
*TORONTO ELECTRIC*  
*COMMISSIONERS*





## EXPLANATORY MEMORANDUM

By-law No. 5036 was passed by the Corporation of the City of Toronto on the 27th January, 1908, authorizing the construction and purchase of the works, plant, machinery and appliances necessary for the distribution of electric power in the City of Toronto, and the issue of \$2,750,000 of City of Toronto 4% sinking fund debentures payable on 1st July, 1948, to provide the funds necessary for the cost of the said works, etc. The electric power required was to be supplied from Niagara Falls by the Hydro-Electric Power Commission of Ontario.

On the 4th May, 1908, an agreement was entered into between the Corporation of the City of Toronto and other municipal corporations of the one part, and the Hydro-Electric Power Commission of Ontario of the other part, providing for the construction by the Hydro-Electric Power Commission of Ontario of a transmission line from Niagara Falls to the termini of the contracting municipal corporations and for the transmission over the said line until the 19th December, 1939, of specified quantities of electric power to the City of Toronto and the said municipal corporations, on the terms and conditions recited therein. Subsequently additional municipalities joined in the enterprise. The rates charged the participating municipalities by the Hydro-Electric Power Commission of Ontario for electric power supplied under the said agreement include provision for the repayment of the capital cost of the transmission line within the period of thirty years.

On the 22nd January, 1912, a further By-law (No. 5918) was passed by the Corporation of the City of Toronto, authorizing a further issue of \$2,200,000 of City of Toronto 4% sinking fund debentures payable 1st July, 1948, to provide for the completion of the City of Toronto distributing works and plant, the construction of which had been authorized by By-law No. 5036.

The construction of the Distributing System of the City of Toronto was commenced by the Corporation of the City of Toronto as an ordinary branch of the municipal services, but subsequently the completion and the whole management thereof were, by Chapter 119 of the Ontario Statutes of 1911, vested in a Board of three Commissioners styled "The Toronto Electric Commissioners."

The Sections of the Act creating the Commission and defining the duties and powers of the Commissioners are as follows:—

16. The Municipal Electric Light, Heat and Power Works (including any purchased) shall be managed by a Board of Commissioners to be called the Toronto Electric Commissioners, which shall consist of three members. The Mayor of the City shall be ex-officio a member of the Board. One member shall be appointed by the Municipal Council of the City on the nomination of the Board of Control, and no appointment shall be made by such Council in the absence of such nomination, except on the affirmative vote of at least two-thirds of the members of the Council present and voting, and the third shall be appointed by the Hydro-Electric Power Commission of Ontario, and such members so appointed shall hold office for two years and until their successors are appointed.
17. The Board shall perform all the duties, and have all the powers, of Commissioners under The Municipal Light and Heat Act, the provisions of which shall apply, except that the Board shall have power to apply so much of the moneys paid over to the Treasurer of the Municipality under the provisions of that Act, as well as the annual revenues, as the Board may deem necessary in improving or extending the works under its management.
18. Each member of the Commission, except the Mayor, shall be entitled to such annual salary, not exceeding \$4,000, as the Board may determine.

The Commissioners first appointed to office and who assumed full control on the 1st June, 1911, were the following:—

P. W. ELLIS, Chairman,

*Appointed by the Corporation of the City of Toronto*

HIS WORSHIP MAYOR GEARY, K.C.,

*Mayor of Toronto*

H. L. DRAYTON, K.C.,

*Appointed by the Hydro-Electric Power Commission of Ontario*

Subsequently Mr. Drayton, K.C., retired to assume the Chairmanship of the Railway Commission, while shortly afterwards Mr. Geary, K.C., retired from the Mayoralty to assume the position of City Counsel to the Municipal Corporation of Toronto. Mr. Drayton's successor has not yet been appointed, and therefore upon the appointment of Mr. Hocken to the Mayoralty, the Board of Commissioners became constituted as follows:—

P. W. ELLIS, Chairman

HIS WORSHIP MAYOR HOCKEN.



# COMMISSIONERS' REPORT



*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto,  
Toronto.*

**G**ENTLEMEN,—

Your Commissioners beg to submit their Second Annual Report, accompanied by the Revenue Account and the Balance Sheet of the Toronto Hydro-Electric System for the year ended 31st December, 1912.

The accounts have been audited by John Mackay and Company, Chartered Accountants, Toronto, under the joint appointment of the Provincial Hydro-Electric Commission and your Commissioners. Their certificate is appended to the accounts in question.

**Financial Position as at 31st December, 1912** The operations for the year 1912 have yielded satisfactory results. From the Revenue Account annexed hereto it will be observed that:

The gross income amounted to the sum of.....	\$726,763.55
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of.....	500,564.26
Leaving a balance of net income of.....	\$226,199.29
The interest chargeable against current operations for the year, the sinking fund instalments for the year, and provision for the depreciation reserve fund, absorbed the sum of.....	212,643.88
Leaving a balance of net surplus earnings for the year 1912, after meeting all charges applicable thereto, to carry forward to 1913, of.....	<u>\$ 13,555.41</u>

It is to be especially noted that the expenses and charges generally described above, and which have been defrayed out of the year's income, include the total cost of getting business and promoting new business. The expenditure for advertising and for canvassers, etc., in prosecuting this important work amounted to over \$53,000 for the year. In view of the volume of continuing business which has been procured as a result thereof, it would have been quite in accordance with commercial practice to carry forward as a charge against future profits a part of this expenditure. Your Commissioners, however, preferred to follow the conservative course of charging the total expenditure of the year against the income of the year.

The sinking fund accruing to the almost purely construction period ended 31st December, 1911, and which is carried as from that date as a charge against future profits, amounts as per the Balance Sheet to \$50,985.49. The final result, therefore, of the operations for 1912 has been that of discharging in full the deficiency that accumulated during the earlier part of the year, when the revenue was smaller, and of accumulating a surplus of \$13,555.41 to apply on the sinking fund obligations of the construction period, thus leaving only \$37,430.08 of that obligation to carry forward against future earnings.

The net earnings are continuing to improve during the current year in a satisfactory ratio, and your Commissioners therefore feel warranted in stating that the surplus for the present year 1913 should, in their opinion, discharge the balance of sinking fund liability arising from the construction period and leave a margin that will justify a reduction of rates in 1914.

The net result of the 1912 operations is more favorable than was anticipated from the interim approximate accounts prepared from time to time during the year. A very gratifying increase of business in the latter part of the year, together with the pleasing reduction of rates made by the Provincial Commission, a reduction in the rate of interest from that on which the interim accounts were based, and other matters, contributed to the ultimate satisfactory result.

It is perhaps worth noting that had the enterprise been conducted under share capital as an ordinary commercial corporation, instead of under debenture capital subject to repayment, the provision that has been made out of income for interest and sinking fund instalments, together with the surplus carried forward to next year (amounting to nearly \$158,000) would have been available for dividend and would have permitted the payment of a dividend at the rate of over 5 per cent. for the whole year on the average capital of \$3,000,000 employed during the year. And this result has been effected on a scale of rates very much lower than the City and Citizens had previously enjoyed and on a volume of business that is still in the infancy stage of development.

The estimated cost of the completed plant as finally decided upon by your Commissioners was \$4,500,000. Of this amount \$3,734,911.33 had been expended to the end of 1912, leaving an unexpended balance against the completion of construction operations of \$765,088.67. This sum will be sufficient to complete the work included in the \$4,500,000 estimate.

The condition of the money market during the past year had the effect of leading your Commissioners to moderate the rate of construction progress with the object of reducing their financial calls upon the Corporation.

**Growth during 1912**      The growth in the services rendered the public during the year 1912 is striking, as the following table shows:—

PARTICULARS	AT JAN. 1, 1912	AT DEC. 31, 1912	INCREASE
Meters in use .....	3,901	13,858	9,957 = 255
Lamps in use.....	87,270	300,024	212,754 = 244
Street lanterns in use .....	18,800	33,824	15,024 = 80
Connected load, h.p.....	10,811	54,655	43,844 = 405
	JAN., 1912	DEC., 1912	
Peak load, h.p.....	5,934	17,198	11,264 = 190

**Civic Services** Very satisfactory arrangements have been entered into with the Waterworks Department which should prove of interest and value to the citizens in connection with the most important question of water supply. These arrangements cover the maintenance by the Waterworks Department of a complete steam pumping plant to be used by it during "Electric-Peak" hours, while, during "Off-Peak" hours electric power will be used. This insures to the Waterworks Department two sources of power supply, thereby protecting the citizens against the dangerous risks attendant upon a single source of supply, while at the same time it gives the Commission a substantial customer for "Off-Peak" periods. The estimated cost to the Waterworks Department of maintaining under this combination the two sources of supply does not exceed the cost of maintaining the steam plant alone under the old arrangements. The Civic Street Car System is also being successfully operated with electric power furnished by the Commission.

**Growth of City and its obligations** Attention is drawn to the fact that the growth of the city will necessitate from time to time capital extensions to the Hydro-Electric System. The mileage of the streets of the city was increased during 1912 from about 408 to 508 miles; the population is increasing; industrial activity shows no sign of abatement; and the services to the public which the Hydro-Electric System was established to render, must be adapted to these enlarging conditions and to the increasing demand that will arise therefrom. The undertaking as confirmed by the public at the time of the passage of the last By-law, provided for 13,000 services, while at the present time nearly 17,000 services are established. While, however, these conditions will compel from time to time enlargements of the system, it is to be noted that the system as it stands to-day is capable of bearing the load of greatly increased demands from the public at large. Wherever Hydro lights are to be found in the streets, there is room and there are facilities for extending the service to the public.

**General Conditions** That the work accomplished to date has been productive is sufficiently evidenced by the annexed accounts. It has not, however, been free from difficulties. On the contrary,



your Commissioners have had to deal with serious and exacting administrative, construction and technical problems which have laid upon them an arduous burden of work. Nor is this work by any means finished. The potentialities of the system are very great. The development of a perfect, frictionless and economical organization adapted to the increasing needs of the public and to the enlarging area of the city, will always impose a burden of responsibility and concentrated work upon those to whom it is entrusted.

The final result of this venture into a new and wide field by Commission government under municipal auspices will also exert a great influence on the future limits of municipal enterprise. This additional responsibility is deeply felt. Your Commissioners have absolute confidence in the outcome. For the confidence and the sympathetic support extended by the Prime Minister of the Province, Sir James Whitney, by the Provincial Hydro-Electric Commission, by the Board of Trade and the Manufacturers' Association, by the Press as a whole, and for the active support rendered by the municipal corporation of the City of Toronto and by the citizens at large during the past year, they are deeply grateful. Such support and confidence can but stimulate them to further exertions in the work to which the city is now finally committed.

Respectfully submitted on behalf of the Commission,

P. W. ELLIS,  
Chairman.

H. C. HOCKEN,  
Mayor.

Toronto, Canada, 4th April, 1913.

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHOWING NET EARNINGS

<u>CHARGES</u>	AMOUNT	TOTAL
To Cost of electric current.....	\$194,328.19	
To Expenses of operation and management including repairs and maintenance; provision for special depreciation of leasehold buildings and improvements (\$3,041); provision for actual and con- tingent losses on accounts receivable, and for all accrued charges as at 31st December, 1912 .....	306,236.07	\$500,564.26
To Balance: Profit carried forward to Sec- tion II.....		226,199.29
		<u>\$726,763.55</u>

## SECTION II: SHOWING

To Interest (one-half charged against con- struction accounts till 30th September) .....	\$ 86,443.19	
To Provision for depreciation .....	68,568.20	
To Sinking fund instalments for year includ- ing amount accrued at 31st December, 1912, and interest on past due instal- ments .....	57,632.49	\$212,643.88
To Balance representing surplus profits carried forward to 1913 .....		13,555.41
		<u>\$226,199.29</u>

## ANALYSIS OF

Total Income .....	
Absorbed thus: Cost of current.....	
Expenses of operation and management	
Interest, depreciation and sinking funds	
Surplus Profits.....	

Electric System for Year ended 31st December, 1912.

FROM TOTAL OPERATIONS FOR YEAR

	INCOME	AMOUNT	TOTAL
By Income from:—			
Commercial lighting .....		\$197,739.21	
Commercial power.....		94,400.05	
Municipal buildings ... ..		3,815.53	
Municipal power .....		106,619.38	
Municipal street lighting .....		275,666.23	
Exhibition light and power .....		22,032.35	
Other municipalities .....		2,399.77	
Sundry other sources .....		24,091.03	\$726,763.55
			<u>\$726,763.55</u>

DISPOSITION OF NET EARNINGS

By Profit brought down from Section I .....	\$226,199.29
	<u>\$226,199.29</u>

REVENUE ACCOUNT

.....	\$726,763.55 = 100%
..... \$194,328.19 = 26.74%	
..... 306,236.07 = 42.13%	
..... 212,643.88 = 29.26%	
..... 13,555.41 = 1.87%	\$726,763.55 = 100%

# BALANCE SHEET AS AT 31st DECEMBER, 1912, OF

<u>ASSETS</u>			
<u>FIXED</u>		AMOUNT	TOTAL
To Capital Expenditure on:			
Lands, Buildings, Transmission System, Sub-station Equipment and Feeder Sys- tem, Distribution System, Municipal Street Lighting System, Line Trans- formers Meters Equipment and De- vices, General Office Stores Department Utility Department and Miscellaneous Equipment, and Exhibition Construction and Equipment .....	\$3,672,800.22		
Leasehold Premises and Improvements	62,111.11	\$3,734,911.33	

<u>LIQUID</u>			
To Stores on hand .....	\$ 254,003.55		
Accounts receivable (cash value) .....	314,733.13		
Cash on hand and in bank .....	4,904.13		
Prepaid charges .....	1,074.40		
City Treasurer's suspense account. ....	8,546.35	583,261.56	
To Sinking fund suspense account for amount of sinking fund instalments accrued during construction period and carried forward as a charge upon future profits. \$			
	50,985.49	50,985.49	

\$4,369,158.38



# THE CITY OF TORONTO HYDRO-ELECTRIC SYSTEM

## LIABILITIES

<u>ON CURRENT ACCOUNT</u>	AMOUNT	TOTAL
By Sundry Accounts Payable:		
(Including accrued charges to date)....	\$433,287.30	
Corporation of the City of Toronto:		
Interest due and accrued to date in-		
cluding \$8,546.35, under adjustment...	94,989.54	\$528,276.84
Sinking Fund:		
Instalments due and accrued to date		
to extinguish capital debt to Corporation		
of the City of Toronto by 1st July, 1948,		
the date on which the city debentures		
fall due .....	106,610.51	
Interest to date on past due instal-		
ments of sinking fund .....	2,007.47	108,617.98
		\$636,894.82
<u>ON CAPITAL ACCOUNT</u>		
By Corporation of the City of Toronto:		
Advances under by-law No. 5,036, in-		
cluding interest capitalized thereunder...	\$2,539,005.60	
Advances under by-law No. 5,918, in-		
cluding interest capitalized thereunder...	1,108,093.35	\$3,647,098.95
<u>ON SURPLUS ACCOUNT</u>		
By Depreciation Reserve Fund:		
In respect of general system, after		
providing out of income for repairs and		
maintenance of buildings, plant and		
equipment.....	\$68,568.20	
In respect of leasehold buildings and		
improvements.....	3,041.00	
Surplus Earnings for Year:		
After providing for expenses of opera-		
tion, management and maintenance,		
for actual and contingent losses, and		
for interest, depreciation and sinking		
funds .....	13,555.41	85,164.61
		<u>\$4,369,158.38</u>

# AUDITORS' REPORT



Toronto General Trusts Building,  
85 Bay Street, Toronto, 3rd April, 1913.

*The Toronto Electric Commissioners,  
Toronto.*

Gentlemen,—

We beg to annex hereto the Revenue Account for the year ended, and the Balance Sheet as at, 31st December, 1912, of the Toronto Hydro-Electric System. We have audited the books and accounts of the System from the 1st June, 1911—the date upon which you assumed control of the administration—to the 31st December, 1912. The expenditure upon the System from its inception until the 31st May, 1911, (during which time it was administered by the municipal corporation of the City of Toronto) amounting to approximately \$1,400,000, has not been audited by us, and we therefore assume no responsibility in connection therewith. Subject to this reservation, we certify as follows:—

- (1) No expenditure has been charged to Capital Account except such as is properly attributable thereto. That portion of the interest which constitutes an integral part of the cost of construction has been charged thereagainst. By-law No. 5,918 of the City of Toronto authorizes the issue of \$2,200,000 of debentures for the express purpose of providing, inter alia, for the said interest charge.
- (2) The Income Account for the year has been charged not only with the usual expenses of operation and management, but with the whole of the cost of getting new business, no part of which has been carried forward; and with provision for actual and contingent losses, for special and general depreciation in addition to the cost of repairs and maintenance, for interest chargeable against current operations, and for the full requirements of the sinking fund necessary to extinguish at maturity the debt incurred.

- (3) The Inventories of stores on hand at 31st December, 1912—while checked by us as to calculations—have been accepted in the usual way as to quantities and prices on the certificates of responsible officers. The inventory of stores on hand at 31st December, 1911, amounted to approximately \$113,000 less than the stores which, according to the books, should have been on hand at that date. The missing stores have in the interval been traced and satisfactorily accounted for, except to the extent of \$6,562.06. In our opinion, after full enquiry, there is little doubt but that, subject to the usual wastage, which itself is a charge upon the operations causing it, the stores represented by this deficiency were consumed upon construction operations and through oversights in the stores department not charged there against. The amount has therefore now been charged against Capital Expenditure Account.
- (4) Our requirements as Auditors have been complied with, and in our opinion the annexed Revenue Account and Balance Sheet are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the enterprise.

We may add that the interim approximate accounts prepared from time to time during the year subject to adjustment in some important matters, showed a less favorable result than is disclosed by the annexed accounts, for the reason that in the interest of safety they were loaded for contingencies to a greater extent than has proved necessary.

Respectfully submitted,

JOHN MACKAY & CO., } Auditors.  
Chartered Accountants, }





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Toronto Electric Commission

Government  
Publications

(The TORONTO  
HYDRO ELECTRIC  
SYSTEM)

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THIRD  
ANNUAL REPORT  
1913





*Copy of a letter from the Chairman of the Commission published in the Daily Newspapers of the City of Toronto on the 21st April, 1913, relative to certain aspects of the work of the Commission.*

DEAR SIR:—

A great deal of publicity has been given to the affairs of the Toronto Hydro-Electric System during the past week. I have not felt that any crisis or emergency had arisen in the affairs of the System to justify the excitement that has been worked up in some quarters or to necessitate a statement from me. I think I am entitled to rely, with some degree of confidence, for protection from attack, upon the simple fact that I have carried on business in this city for over forty years in full sight of my fellow-men. I most deeply regret, however, the exaggerated stories, because of their possible temporary effect upon the business of the System.

The time has come, therefore, when, in the interest of the Hydro-Electric System over which I preside, it is desirable to make a short public statement.

The late acting general manager of the System, Mr. Sweany, along with a number of subordinate employees, without notice or intimation to me and without any prior representation of grievances real or imaginary, presented secretly a petition to the Mayor and Board of Control on the 14th instant, asking that I be not reappointed to office, and charging that I was influenced by political and other ulterior motives in my policy.

At a subsequent meeting of the Commission it was decided to dismiss summarily the acting general manager for his highly improper conduct. The subordinate employees, with whom, in forgetfulness of the obligations of his position he had associated himself, having been led away by youth and inexperience, were allowed to return to their various employments, with a caution as to their future conduct.

They made a communication, however, to the Press that same night, justifying their conduct, and in consequence, they too, were dismissed. In the meantime the operation of the whole System had been placed in charge of Mr. R. A. Ross, of Montreal, under arrangements that insured an uninterrupted service.

In connection with the dismissal of the acting general manager, I may also say that his past services had been entirely unsatisfactory. He was in the employment of the System at the time the Commissioners assumed office, his duties then including the control of the accounting department and of the sales department. Upon the retirement of Mr. Aitkin he was appointed under the necessities of the time, acting general manager. It speedily became apparent, however, that he had neither the qualifications nor the capacity for this position. The Commission, therefore, has been seeking for a long time back for a thoroughly competent general manager, and, in accordance with the announcement made a few days ago, they appointed, by a resolution passed on February 25th last, Mr. H. H. Couzens, of Hampstead, England, to that position. Mr. Couzens is a gentleman of large and wide experience and of high attainments, who, I am satisfied, will discharge his responsible duties with credit and success.

The Commissioners are charged by law with responsibility for the management of the Hydro-Electric System. The duty thus laid upon them is peremptory. They must manage the undertaking. They were appointed for that purpose. Authority for management is vested in no other body. They cannot shoulder these responsibilities on the City Council, on the Provincial Hydro-Electric Commission, or on any other body. It is folly, therefore, to criticise the Commission for discharging the duties thus expressly laid upon it. Their administration is fully vindicated by their recent report.

I hardly think it necessary to say that never at any time have I been influenced in what I have done or in what I have vetoed, by any consideration other than that of promoting the interests of the System.

So far as there has been unfavorable public comment, it has taken two directions, viz., that of suggesting that the City Council appoint someone else as Commissioner in my place, and that the administration of the Commissioners shall be investigated.





THE TORONTO  
HYDRO-ELECTRIC SYSTEM



*THE THIRD ANNUAL REPORT*  
*OF THE*  
*TORONTO ELECTRIC*  
*COMMISSIONERS*



## EXPLANATORY MEMORANDUM

By-law No. 5036 was passed by the Corporation of the City of Toronto on the 27th January, 1908, authorizing the construction and purchase of the works, plant, machinery and appliances necessary for the distribution of electric power in the City of Toronto, and the issue of \$2,750,000 of City of Toronto 4% sinking fund debentures payable on 1st July, 1948, to provide the funds necessary for the cost of the said works, etc. The electric power required was to be supplied from Niagara Falls by the Hydro-Electric Power Commission of Ontario.

On the 4th May, 1908, an agreement was entered into between the Corporation of the City of Toronto and other municipal corporations of the one part, and the Hydro-Electric Power Commission of Ontario of the other part, providing for the construction by the Hydro-Electric Power Commission of Ontario of a transmission line from Niagara Falls to the termini of the contracting municipal corporations and for the transmission over the said line until the 19th December, 1939, of specified quantities of electric power to the City of Toronto and the said municipal corporations, on the terms and conditions recited therein. Subsequently additional municipalities joined in the enterprise. The rates charged the participating municipalities by the Hydro-Electric Power Commission of Ontario for electric power supplied under the said agreement include provision for the repayment of the capital cost of the transmission line within the period of thirty years.

On the 22nd January, 1912, a further By-law (No. 5918) was passed by the Corporation of the City of Toronto, authorizing a further issue of \$2,200,000 of City of Toronto 4% sinking fund debentures payable 1st July, 1948, to provide for the completion of the City of Toronto distributing works and plant, the construction of which has been authorized by By-law No. 5036.

On the 13th October, 1913, an additional By-law (No. 6674) was passed by the Corporation authorizing an additional issue of \$700,000 of City of Toronto 4½% sinking fund debentures payable 1st July, 1953 to provide for additions to the physical system previously authorized.

The construction of the Distributing System of the City of Toronto was commenced by the Corporation of the City of Toronto as an ordinary branch of the municipal services, but subsequently the completion and the whole management thereof were; by Chapter 119 of the Ontario Statutes of 1911, vested in a Board of three Commissioners styled "The Toronto Electric Commissioners."

The Sections of the Act creating the Commission and defining the duties and powers of the Commissioners are as follows :—

16. The Municipal Electric Light, Heat and Power Works (including any purchased) shall be managed by a Board of Commissioners to be called the Toronto Electric Commissioners, which shall consist of three members. The Mayor of the City shall be ex-officio a member of the Board. One member shall be appointed by the Municipal Council of the City on the nomination of the Board of Control, and no appointment shall be made by such Council in the absence of such nomination, except on the affirmative vote of at least two-thirds of the members of the Council present and voting, and the third shall be appointed by the Hydro-Electric Power Commission of Ontario, and such members so appointed shall hold office for two years and until their successors are appointed.
17. The Board shall perform all the duties, and have all the powers, of Commissioners under The Municipal Light and Heat Act, the provisions of which shall apply, except that the Board shall have power to apply so much of the moneys paid over to the Treasurer of the Municipality under the provisions of that Act, as well as the annual revenues, as the Board may deem necessary in improving or extending the works under its management.
18. Each member of the Commission, except the Mayor, shall be entitled to such annual salary, not exceeding \$4,000, as the Board may determine.

The Commissioners first appointed to office and who assumed control on the 1st June, 1911, were the following :—

P. W. ELLIS, Chairman,

*Appointed by the Corporation of the City of Toronto*

HIS WORSHIP MAYOR GEARY, K.C.,

*Mayor of Toronto*

H. L. DRAYTON, K.C.,

*Appointed by the Hydro-Electric Power Commission of Ontario.*

Subsequently Mr. Drayton, K.C., retired to assume the Chairmanship of the Railway Commission, while shortly afterwards Mr. Geary, K.C., retired from the Mayoralty to assume the position of City Counsel to the Municipal Corporation of Toronto. Subsequently Mr. Hocken was appointed Mayor and assumed the position of Commissioner in consequence thereof, while Mr. Ellis was reappointed a Commissioner by the Corporation of the City of Toronto and Mr. Black was appointed a Commissioner by the Provincial Hydro-Electric Commission. The Board of Commissioners is therefore now constituted as follows:—

P. W. ELLIS, Chairman

HIS WORSHIP MAYOR HOCKEN

R. G. BLACK



# COMMISSIONERS' REPORT



*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto,  
Toronto.*

GENTLEMEN,—

Your Commissioners beg to submit their Third Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements, of the Toronto Hydro-Electric System, for the year ended 31st December, 1913. The accounts have been audited by John Mackay and Company, Chartered Accountants, whose certificate is appended thereto.

**Appointment of  
General Manager**

Before referring to the accounts which set forth the financial progress and position of the enterprise, it is proper to say that in the early part of 1913 Mr. H. H. Couzens, Electrical Engineer, of Hampstead, England, was appointed General Manager of the System under a three years' engagement. Mr. Couzens entered upon his duties at the beginning of July last, and the high opinion originally formed by your Commissioners of his qualifications and attainments has been fully vindicated by the zeal and capacity he has shown in the interval in carrying on the responsible and difficult administrative duties of his post.

The former Acting General Manager, along with a number of subordinate employees, had been peremptorily dismissed in the month of April for grossly improper conduct. Shortly after their dismissal there was a strike among the union employees of the System, the matters at issue, including that of wages, being, however, settled by arbitration within a short time thereafter. The rupture of the organization occasioned by the misconduct of the Acting General Manager, and other consequences of his incompetence for the position, together with the added charges laid upon the System in consequence of the strike, have added materially

to the financial as well as to the administrative burdens of the past year. It is a matter, however, for congratulation that, as the accounts will show, the financial burden has been entirely overcome, and no small part of the credit thereof is to be attributed to the General Manager whose administration under these unusually difficult conditions has given your Commissioners a very high degree of satisfaction.

**Financial Position as at 31st December, 1913** The operations for the year 1913 have yielded very satisfactory results. From the Revenue Account annexed hereto it will be observed that:

The gross income amounted to the sum of.....	\$1,159,339.71
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of.....	681,217.01
Leaving a balance of net income of.....	\$478,122.70
The interest, depreciation, and sinking funds for the year absorbed the sum of.....	443,546.83
Leaving a balance of net surplus earnings for the year after meeting all charges applicable thereto, of.....	<u>\$ 34,575.87</u>

The whole of the cost of getting and promoting new business amounting to upwards of \$60,000.00 has again been met out of the year's income.

During the last quarter of the year a careful appraisal was made by the General Manager of the wearing lifetime and the residual values of the physical plant and equipment and the Depreciation appropriation for the year, which is substantially larger than that of last year, has been based upon that appraisal. The amount set aside for depreciation in 1912, though quite sufficient to cover the actual wear and tear of the plant and equipment for that year—the first complete working year it had been in use—was, however, based, pending an appraisal of the wearing lifetime of the different parts of the plant, upon a tentative rate only. It is unnecessary to emphasise the capital importance of establishing and maintaining out of income, a fund from which to maintain the physical

plant in the highest state of efficiency and to replace the various parts thereof as they wear out. This is a first principle in sound finance. No departure therefrom is capable of justification.

The Sinking Fund appropriation covers the amount required for the year under the three governing City by-laws, together with interest on past due instalments. The Sinking Fund Suspense Account likewise annexed hereto gives full details of the amount of \$94,617.20, which is carried forward as a charge upon the surplus earnings of 1914 and future years. The Corporation of the City of Toronto is under a contract obligation to the debenture holders to maintain sinking funds in accordance with the terms of the governing by-laws. These obligations have been quite properly charged by the Corporation against and assumed by the Hydro-Electric System. The total amount thereof at the 31st December, 1913, was \$289,211.16. From this total there has been deducted:

- (a) The provision made out of income for the year 1912 representing a full year's instalment and interest thereon, on the actual net debt of the System as at the end of that year.
- (b) The provision made out of income for the year 1913, representing a full year's instalment as required by the first two by-laws and a half-year's instalment as required by the terms of the third by-law and interest thereon.
- (c) The surplus earnings for the year 1912; and
- (d) The surplus earnings for the year 1913,

thereby leaving a net balance as aforesaid of \$94,617.20 to carry forward against future profits.

(Had the enterprise been conducted as a commercial corporation with share capital instead of being charged with debenture capital subject to repayment, the net earnings for the year would have been shown at the amount of \$312,164.14, that being the sum of the interest and sinking fund appropriations and the net surplus, or the equivalent of a dividend at the rate of  $7\frac{1}{2}\%$  upon the average amount of cash capital invested therein.)

Additions have been made to the physical system beyond the limits covered by By-laws 5036 and 5918, in respect of—

- (a) Certain requirements of the street and park lighting system,
- (b) A 13,200 volt commercial power distribution system,
- (c) Some special equipment in connection with the Civic car lines, and
- (d) Certain other increases in general capacity,

at a cost of approximately \$620,000. To cover this expenditure By-law No. 6674 authorizing the issue of \$700,000 of 4½% sinking fund debentures dated 1st July, 1913, and maturing on the 1st July, 1953, was passed by the Corporation of the City of Toronto on the 13th October, 1913, and duly sanctioned by the Ontario Railway and Municipal Board.

The total expenditure authorized by and the net proceeds of the debentures issued under the three By-laws are as follows:—

By-Law No.	Estimated Cost of System	Actual Cash Proceeds of Debentures	% of Face Value	Discount and Expenses on Debentures	% of Face Value	Amount of Debenture Issues Authorized
5036 (4%)	\$2,500,000.00	\$2,240,124.55	81.46	\$509,875.45	18.54	\$2,750,000.00—100%
5918 (4%)	2,000,000.00	1,816,774.89	82.58	383,225.11	17.42	2,200,000.00—100
Total	4,500,000.00	4,056,899.44	81.96	893,100.56	18.04	4,950,000.00—100%
6674 (4½%)						
Estd. cost	620,000.00					
Cash proceeds till 31/12 13		431,464.51				
Ditto Jan., '14		209,870.49	91.62			
Discount till 31/12/13				39,967.50		
Ditto Jan., '14				18,697.50	8.38	
Debs. issued						700,000.00—100
Grand Total	\$5,120,000.00	\$4,698,234.44	83.15	\$951,765.56	16.85	\$5,650,000.00—100

Of the total estimated expenditure of \$5,120,000.00 authorized by the aforesaid By-laws, the sum of \$4,619,539.20 had been expended up to the 31st December last, leaving a balance of \$500,460.80 available for construction work not then finished. It is anticipated that this will



suffice to complete the work included in the above estimates. It is to be noted, however, that the net proceeds of the total issues of debentures amount only to the sum of \$4,698,234.44 or \$421,765.56 short of the estimated cost of complete construction. This deficiency will require to be made available for the use of your Commission as it is required.

It is important that the necessities of the System in respect of working capital be clearly explained. No provision has yet been made for furnishing the Enterprise with any capital except that required for purely construction purposes. In addition to the capital funds invested in plant and equipment there will always be a large amount invested in stores on hand, in accounts receivable outstanding, and in sundry other directions. The funds so invested must either be obtained from the General Creditors, from the free part of the accumulating depreciation reserves, from the accumulating surplus earnings, or by way of additional capital. Creditors, however, require to be paid and paid promptly if satisfactory business is to be maintained. The depreciation reserves may be employed to some extent as working capital, but it is neither sound nor possible that they should be wholly monopolized for that purpose. The policy of carrying on the System at cost for the benefit of consumers will prevent the accumulation of surplus earnings on a large scale. If they should be so accumulated it means the maintenance of profit yielding rates instead of rates based on cost. Therefore if the funds required for these additional necessary investments are neither contributed by creditors nor by surpluses, they must be provided by way of additional working capital.

The amount required as at 31st December last by way of working capital is as follows:—

Stores Investment.....	\$231,511.51
Accounts Receivable.....	351,748.12
Prepaid Charges.....	3,582.31
Sinking Fund obligations carried forward .....	94,617.20
	\$681,459.14
Less: Depreciation Reserves accumulated.....	246,647.77
	<u>\$434,811.37</u>

It is not likely that the funds invested in stores on hand and represented by accounts receivable will ever be placed permanently at a lower level than that at which they stood at the 31st December last. On the contrary, it is most probable that with a continuation of the growth of the System, the amounts invested in stores and outstanding in respect of accounts receivable, will reach, from time to time, still higher levels. The amount temporarily required to make good sinking fund obligations will, of course, be recovered from future income upon which it is a charge. The foregoing figures make it quite clear that at the present stage of development, working capital over and above the amount provided for construction capital should be furnished to the minimum extent of half a million dollars; but having in view the expansion of the System and the necessity for keeping a portion of the depreciation reserves always available for the true purposes of the fund, arrangements ought to be made for placing at the disposal of the Commission working capital to be availed of as required, to the extent of an even million dollars. The amount required could either be raised by the Corporation direct, or by the Commissioners on the credit of the Corporation. Special powers would probably be required to cover either method. The better method would be that of authorizing the Commissioners to borrow on the credit of the City, as in that event they would only employ the funds as, to the amount, and for the periods required, thereby saving unnecessary interest charges. Pending the grant of the necessary working capital, or, in the alternative, the accumulation of surpluses to the required amount, it is, of course, obvious that the current debt to the Corporation of the City of Toronto in respect of interest and sinking funds, amounting to the sum of \$563,337.21 cannot be fully discharged. The importance, therefore, of making early arrangements in this matter is self-evident.

**Progress during  
1913**

Very satisfactory progress has been made during the year 1913, both in respect of the services rendered the public and in respect of the internal administrative and operating efficiency. The following table shows the growth in the services rendered the public:—

PARTICULARS	AT 31ST DEC. 1912	AT 31ST DEC. 1913	INCREASE
Meters in use.....	13,858	24,999	11,141=80%
Street lanterns in use.....	33,824	38,944	5,120=15%
	DEC. 1912	DEC. 1913	
Peak Load, h.p.....	17,198	22,520	5,322=31%

The growth of income and the improvement in administrative and operating efficiency are clearly set forth in the comparative statements annexed to the accounts herewith. The principal features thereof may be summarised as follows:—

The total income has increased from \$726,763.55 in 1912 to \$1,159,339.71 in 1913, a gain of \$432,576.16 or nearly 60%. The commercial income has grown from \$338,262.64 in 1912 to \$684,622.36 in 1913, a gain of \$346,360.28 or 102½%. The net surplus after providing for all fixed charges has grown from \$13,555.41 in 1912 to \$34,575.87 in 1913, a gain of \$21,020.46 or 155%. That is to say that the total income has increased by 60%; the commercial income has more than doubled itself; and the net surplus earnings after providing for all fixed charges applicable to the year's operations, are over two and one half times what they were in 1912. The cost of current has been reduced by 4⅔%, and the expenses of operation, maintenance and management have been reduced by nearly 5½%. The decrease in the cost of current is due in part to the reduction of price by the Provincial Commission, and in part to the improved engineering management of the present General Manager, the load factor of 1912 being 59.5% while that of 1913 was 70.4%. That is to say that the better distribution of load and the better keeping down of the peak load during 1913 led to an actual consumption of 70.4 K.W.H. units out of each 100 units bought and paid for as against a consumption of only 59.2 K.W.H. units in 1912 out of each 100 units then bought and paid for. The reduction of nearly 5½% in the ratio of operating expenses is due to the growth of business, and to the efficient management of Mr. Couzens. These gains are the more pleasing by reason of the costly circumstances mentioned in the first paragraph hereof.

There has been an increase in the ratio of interest to income of 4.39%, and in the ratio of depreciation to income 4.87%. The interest increase is due to the heavy additional burden laid upon the Enterprise by being charged with the loss of \$933,068.06 arising out of the sale of the debentures, for which, of course, no value has been received. The increase in the depreciation ratio is due to the heavier necessary provision made therefor, under the appraisal of the wearing life time of the plant referred to above.

**Enlargement of System**      The growth of the City, to which attention was drawn last year, continues in undiminished degree. There are now 520 miles of streets lighted by the Hydro-Electric System, as against 280 miles at the time of the inception of the Enterprise. Enlargements of the System to overtake the obligations arising out of the City's growth, will be necessary from time to time. The interruptions of service during the past year on the lines of the Provincial Hydro-Electric Commission through insulator troubles, have established the necessity of providing an auxiliary Steam Reserve Plant that will take care of the load during temporary breakdowns. At a joint conference held by the Provincial Commission and your Commissioners during the year, a formal decision was taken to instal, as soon as possible, the necessary Steam Reserve Plant. The estimated capital cost thereof, is approximately \$1,000,000.00. The carrying and the operating charges thereof will add substantially to the annual charges of the System, but this extra cost must be regarded as a relatively cheap insurance against the heavy penalties that otherwise would have to be borne by the power and light consumers, on account of service interruptions from time to time, proceeding from uncontrollable causes.

**Reduction of Rates**      In the last annual report your Commissioners expressed the opinion that with a continuation of satisfactory surpluses a reduction of rates might possibly be effected during the year 1914. During the interval, however, three conditions have arisen not then contemplated, which combine to defer for the time being any possible reduction of rates. In the first place, the interruptions of service on the Provincial Hydro lines which have since occurred, have,

as already stated, established the necessity of providing a Steam Reserve Plant, the heavy annual charges of which will constitute an additional burden on the System, not then contemplated or allowed for. In the second place, it was not anticipated at that time that the Enterprise would be loaded with the heavy additional burden since laid upon it by reason of the low prices at which the Corporation of the City of Toronto found it necessary to sell the debentures authorized by the first two by-laws. The discount and expenses of these two debenture issues amount, as set forth in the second paragraph hereof, to the sum of \$893,100.56 or 18.04% of the face value of the issues, while the total flotation cost of the three issues amounts to \$951,765.56 or 16.85% of the face value thereof—that is a little over 20% of the amount of the nett proceeds. That is to say, that each \$100.00 of cash invested in Plant, has cost by reason of these heavy expenses, a little over \$120.00. The additional annual burden laid thereby upon the Enterprise, until the maturity of the debentures, by way of interest and sinking fund on this loss of \$951,765.56 amounts to \$53,913.22. It was, of course, anticipated that there would be some loss by way of debenture discounts, and therefore certain additional annual charges arising therefrom, but the actual amount incurred, is far beyond anything then contemplated.

In the third place, it was not anticipated when the report was issued a year ago, that the Commission would be called upon to assume the retroactive sinking fund obligations attached to the debenture issues otherwise than by equal annual loadings for the remaining debenture term. It has, however, become necessary to assume them in full, with the result that future surpluses have been thereby mortgaged in favor of the sinking fund obligations to the amount of \$94,617.20. The burden, therefore, imposed upon the System by the necessity of establishing a Steam Reserve Plant; by the additional interest and sinking fund obligations in question; and the necessity of utilising the whole of the resources of the System for the payment of current liabilities pending arrangements for a sufficient amount of working capital, combine to make a reduction of rates at the present time impossible. It is due to the public that these conditions be clearly stated, because very unfortunately an impression has recently been sown in the public mind, that a reduction of rates is imminent. The rates



enjoyed by the customers of the Hydro-Electric System are understood to be lower than rates of like service in any city on the Continent of this size. No complaint has, so far as your Commissioners are aware, been voiced against these rates by the customers of the System. Whenever the conditions warrant it, the rates will be lowered, but it would be a breach of trust on the part of your Commissioners to sanction any reduction thereof before the financial condition of the Enterprise justifies it. It is the policy of your Commissioners to give, in the first place, a first-class service, and in the second place, to give that service at the lowest cost possible. That policy will be firmly adhered to.

**Sale of  
Debentures**

In view of statements that have been publicly made to the effect that your Commissioners are responsible for the heavy debenture loss, it is necessary to point out that the Commission had nothing whatever to do with the sale of these debentures. They were sold directly by the Corporation of the City of Toronto. It is, in the judgment of your Commissioners, very unfortunate that the debentures authorized under By-laws Nos. 5036 and 5918, aggregating \$4,950,000.00, were not sold earlier, when the market for Municipal Debentures was much more favorable. The first-mentioned By-law was passed in January 1908, and the second in January 1912, but the debentures were not sold until the middle of 1913, when the conditions of Civic finance and the state of the money market combined to render a sale compulsory. The prices realised were probably satisfactory in view of the then state of the market and the history of the previous financing attempted. But the quoted prices ex dividend on the London Stock Exchange between July 1910 and July 1912 of four per cent. City of Toronto debentures due 1944-1948, ranged from 101-103 at the first-mentioned date to 96-98 at the last mentioned date. Had these two issues been sold within the period named they would probably have realised minimum prices of from 92 to 96, giving a safe average of say 94. The resultant saving would have been about 12 $\frac{1}{2}$ % or \$594,000.00. In the judgment of your Commissioners all Hydro-Electric debentures should be marketed by themselves.

**Civic Electric  
Services**

In connection with the proposed extensions to the Civic Water-Works System, attention is drawn to the importance to the Hydro-Electric System of the Water-Works Department utilizing electric power in the fullest possible degree. The Corporation has invested a large amount of Capital in the System, which was established on the faith and the covenant of a complete monopoly of the Civic Electric services. The supply of electric power to the Water-Works Department for all purposes thereof during off-peak hours will have an important influence in reducing the all round cost, and therefore in bringing the time nearer at which rates may be reduced. It is also worth while noting in connection with street lighting cost that the Street Lighting System now represents a connected load of 5,600 H.P. against an estimated load of 666 H.P. at the inception of the Enterprise and as already stated 520 miles of streets are now lighted against 280 miles at the time aforesaid. The extra cost the Municipality is now under for street lighting is due therefore to the extra service given, the rates being the lowest in the history of the City.

**Auditors'  
Report**

The matters referred to by the Auditors in paragraph four of their report are in process of adjustment. This is a relic of the unsatisfactory conditions originating in the regime of the former management. The matters referred to in paragraph five of the same report will be settled with the Corporation of the City of Toronto during the present year.

**Conclusion**

The progress of the past, and the promise of the future amply vindicate the public confidence placed in the Enterprise, and for the many continuing proofs of that confidence your Commissioners are deeply grateful.

Respectfully submitted

BY THE BOARD OF COMMISSIONERS.

P. W. ELLIS,  
Chairman.

H. C. HOCKEN,  
Mayor.

R. G. BLACK.

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHEWING NETT EARNINGS

<u>CHARGES</u>	AMOUNT	TOTAL
To Cost of electric current .....	\$255,986.26	
To Expenses of operation and management including repairs and maintenance; provision for special depreciation of leasehold buildings and improvements (\$9,080.01); provision for actual and contingent losses on accounts receivable other than those against the City of Toronto, and for all accrued charges as at 31st December, 1913 .....	425,230.75	681,217.01
To Balance: Nett earnings carried forward to Section II .....		478,122.70
		<u>\$1,159,339.71</u>

## SECTION II: SHEWING

To Interest for year .....	188,758.08	
To Depreciation for year .....	165,958.56	
To Sinking funds for year:—		
Under City By-law No. 5036.....	36,471.00	
Under City By-law No. 5918.....	34,254.00	
Under City By-law No. 6674.....	4,641.50	
Interest on past due Sinking fund Instalments .....	13,463.69	88,830.19
To Balance representing surplus earnings for year carried to surplus account .....		34,575.87
		<u>\$478,122.70</u>

## ANALYSIS OF

Total Income.....	
Absorbed thus: Cost of current .....	
Expenses of operation, maintenance and management .....	
Interest, Depreciation and sinking funds.....	
Surplus earnings .....	

# Electric System for Year Ended 31st December, 1913

## FROM TOTAL OPERATIONS FOR YEAR

	<u>INCOME</u>	AMOUNT	TOTAL
By Income from:—			
Commercial lighting .....		\$411,905.17	
Commercial power.....		229,615.08	
Municipal buildings lighting .....		12,270.76	
Municipal power .....		117,093.80	
Municipal street lighting .....		344,933.79	
Exhibition light and power .....		22,525.87	
Other municipalities.....		419.00	
Sundry other sources .....		20,576.24	1,159,339.71
			<u>\$1,159,339.71</u>

## DISPOSITION OF NETT EARNINGS

By Nett Earnings brought down from Section 1 .....	478,122.70
	<u>\$478,122.70</u>

## REVENUE ACCOUNT

.....	\$1,159,339.71 = 100%
..... \$255,986.26 = 22.08%	
..... 425,230.75 = 36.68%	
..... 443,546.83 = 38.26%	
..... <u>34,575.87 = 2.98%</u>	<u>\$1,159,339.71 = 100%</u>

## BALANCE SHEET AS AT 31st DECEMBER, 1913, OF

ASSETS

<u>FIXED</u>	AMOUNT	TOTAL
To Capital Expenditure on:—		
Lands, Buildings, Transmission System, Sub-station Equipment and Feeder Sys- tem, Distribution System, Municipal Street Lighting System, Line Transformers, Meters Equipment and Devices, General Office Stores Department, Utility Department and Miscellaneous Equipment, and Exhibition Construction and Equipment .....	\$4,549,270.93	
Leasehold Premises and Improvements .....	70,268.27	
	\$4,619,539.20	
To Debenture Discount and Expenses .....	<u>933,068.06</u>	\$5,552,607.26

LIQUID

To Stores on hand .....	\$ 231,511.51	
To Accounts receivable.....	351,748.12	
To Cash:—		
On Deposit with Bank of Montreal.....	255,353.02	
On Hand .....	2,645.76	
To Prepaid charges.....	<u>3,582.31</u>	844,840.72
To Sinking Fund Suspense Account:—		
Amount carried forward as a charge on future surpluses as per account annexed.....		94,617.20

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\$6,492,065.18



# THE CITY OF TORONTO HYDRO-ELECTRIC SYSTEM

## LIABILITIES

<u>ON CURRENT ACCOUNT</u>	AMOUNT	TOTAL
By Sundry Accounts Payable, including provision for accrued charges and contingencies.....	\$260,648.19	260,648.19
By Corporation of the City of Toronto:—		
For interest due and accrued to date .....	274,126.05	274,126.05
For sinking funds due and accrued to date as follows:—		
Under By-law No. 5036:		
Instalments .....	200,590.50	
Interest thereon .....	14,178.93	214,769.43
Under By-law No. 5918		
Instalments .....	68,508.00	
Interest thereon .....	1,292.23	69,800.23
Under By-law No. 6674		
Instalment .....	4,641.50	4,641.50
		<u>289,211.16</u>
		\$823,985.40

## ON CAPITAL ACCOUNT

By Corporation of City of Toronto:—		
Cash advanced under By-law No. 5036 .....	2,240,124.55	
Debenture discount and expen- ses under By-law No. 5036...	509,875.45	2,750,000.00
Cash advanced under By-law No. 5918.....	1,816,774.89	
Debenture discount and expen- ses under By-law No. 5918...	383,225.11	2,200,000.00
Cash advanced under By-law No. 6674 .....	431,464.51	
Debenture discount and expen- ses under By-law No. 6674...	39,967.50	471,432.01
		<u>5,421,432.01</u>

## ON SURPLUS ACCOUNT

By Depreciation Reserve Fund:—		
In respect of general system after providing out of income repairs and maintenance:		
Brought forward from 1912.....	68,568.20	
Appropriated in 1913 .....	165,958.56	234,526.76
In respect of leasehold property:		
Brought forward from 1912.....	3,041.00	
Appropriated in 1913 .....	9,080.01	12,121.01
		<u>246,647.77</u>
		<u>\$6,492,065.18</u>

# SINKING FUND

## SECTION I: SHEWING SINKING FUND CHARGES TO 31<sup>st</sup> DECEMBER, 1913, FOR THE PROVISION MADE THEREFOR FROM INCOME; AND THE BALANCE

Dr.: Sinking Fund Charges	Sinking Fund Instalments	Interest at 3% per annum thereon	Total
Under By-law No. 5036:			
To Sinking fund instalment No. 1 due 30/6/09	\$36,471.00		
To Interest to 30/6/10 .....		\$1,094.13	
To Sinking fund instalment No. 2 due 30/6/10	36,471.00		
To Interest to 30/6/11 .....		2,221.08	
To Sinking fund instalment No. 3 due 30/6/11	36,471.00		
To Interest to 30 6 12 .....		3,381.85	
To Sinking fund instalment No. 4 due 30 6/12	36,471.00		
To Interest to 30 6 13 .....		4,577.43	
To Sinking fund instalment No. 5 due 30/6/13	36,471.00		
To Interest to 31/12/13 .....		2,904.44	14,178.93
To Sinking fund instalment for half year accrued at 31/12/13 .....	18,235.50		200,590.50
Under By-Law No. 5918:			
To Sinking fund instalment No. 1 (for half year) due 30/6/12 .....	17,127.00		
To Interest to 30 6 13 .....		513.81	
To Sinking fund instalment No. 2 due 30/6/13	34,254.00		
To Interest to 31/12/13 .....		778.42	1,292.23
To Sinking fund instalment for half year accrued at 31/12/13 .....	17,127.00		68,508.00
Under By-law No. 6674:			
To Sinking fund instalment for half year accrued at 31/12/13 .....	4,641.50		4,641.50
	<u>\$273,740.00</u>	<u>\$15,471.16</u>	<u>\$289,211.16</u>

## SECTION II: SHEWING AMOUNT TO BE CARRIED FORWARD AS A CHARGE THE ACCUMULATED SURPLUS

To Balance brought down, viz.:	
Amount of accumulated sinking fund instalments to 31/12/13 after deducting all provision made out of income to meet the same (including \$50,985.49 carried forward from 1912 accounts) .....	
	\$142,748.48
	<u>\$142,748.48</u>
To Balance carried forward as a charge upon surplus earnings of year 1914 .....	\$94,617.20

## EXPENSE ACCOUNT

WHICH PROVISION MUST BE MADE UNDER TERMS OF GOVERNING BY-LAWS:  
CHARGEABLE AGAINST EXISTING AND FUTURE SURPLUSES.

Cr.: Sinking Fund Appropriations	Sinking Fund Instalments	Interest thereon	Total
By Appropriation from income for year 1912 of full year's sinking fund on actual debt at 31st December, 1912, and interest on past due instalments thereof.....	\$55,625.02	\$2,007.47	\$57,632.49
By Appropriation from income for year 1913 of full year's sinking fund under By-laws Nos. 5036 and 5918, and half year's sinking fund under By-law No. 6674, and interest on all past due instalments under terms of By-laws.....	75,366.50	13,463.69	88,830.19
By Balance chargeable against existing and future surpluses carried down to Section II.....	142,748.48		142,748.48

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\$273,740.00	\$15,471.16	\$289,211.16
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UPON THE SURPLUS EARNINGS OF YEAR 1914 AFTER APPLYING THERETO  
S AT 31st DECEMBER, 1913.

By Surplus earnings for year 1912 applied hereon.....	\$13,555.41
By Surplus earnings for year 1913 applied hereon .....	34,575.87
By Balance carried forward as a charge upon surplus earnings for year 1914 .....	94,617.20
	<u>\$142,748.48</u>

# COMPARATIVE STATEMENT SHEWING GROWTH OF BUSINESS IN 1913

Income	Amount 1912	Amount 1913	Increase or Decrease	
			Amount	%
Commercial lighting .....	\$197,739.21	\$411,905.17	Inc. \$214,165.96	108.31
Commercial power .....	94,400.05	229,615.08	„ 135,215.03	143.24
Exhibition light and power...	22,032.35	22,525.87	„ 493.52	2.24
Municipal buildings lighting.	3,815.53	12,270.76	„ 8,455.23	221.59
Municipal power .....	106,619.38	117,093.80	„ 10,474.42	9.82
Municipal street lighting.....	275,666.23	344,933.79	„ 69,267.56	25.13
Sundry other sources .....	26,490.80	20,995.24	Dec. 5,495.56	20.74
	<u>\$726,763.55</u>	<u>\$1,159,339.71</u>	Inc. \$432,576.16	59.52

## STATEMENT SHEWING IMPROVEMENT IN COMMERCIAL BUSINESS IN 1913

Income	1912		1913	
	Amount	% of Total	Amount	% of Total
Commercial Income:—				
Lighting.....	\$197,739.21	27.21	\$411,905.17	35.53
Power.....	94,400.05	12.99	229,615.08	19.81
Exhibition and sundry.	46,123.38	6.34	43,102.11	3.71
Total Commercial Income.	338,262.64	46.54	684,622.36	59.05
Total Municipal Income ...	388,500.91	53.46	474,717.35	40.95
Grand total .....	<u>\$726,763.55</u>	<u>100%</u>	<u>\$1,159,339.71</u>	<u>100%</u>

Increase on total  
commercial business  
\$346,360.00 or 102.1%

## COMPARATIVE ANALYSIS SHEWING DECREASE IN OPERATING COSTS AND INCREASE IN NETT SURPLUS IN 1913

Charges	1912		1913	
	% of Income	% of Income	Increase or Decrease 1913 % of Income	
Cost of Current .....	26.74	22.08	Dec.	4.66
Expenses of Operation Maintenance and Management .....	42.14	36.68	„	5.46
Interest .....	11.89	16.28	Inc.	4.39
Depreciation .....	9.44	14.31	„	4.87
Sinking Funds .....	7.93	7.66	Dec.	.27
Surplus .....	1.86	2.99	Inc.	1.13
	<u>100</u>	<u>100</u>		

# AUDITORS' REPORT



Toronto General Trusts Building,  
85 Bay Street, Toronto, 21st March, 1914.

*The Toronto Electric Commissioners,  
Toronto.*

Gentlemen,—

We beg to annex hereto the Revenue Account for the year ended, and the Balance Sheet as at, 31st December, 1913, together with auxiliary accounts of the Toronto Hydro-Electric System. We have audited the books and accounts of the System for the year 1913, and we report thereon as follows :—

- (1) That the Income Account has been properly charged with all Operating and Revenue expenditure for the year, viz. :
  - (a) With the whole of the expenses of management, maintenance and operation, including the total cost of getting new business, and with provision for losses on Consumers Accounts against the general public;
  - (b) With interest on the whole of the funded and floating debt owing to the Corporation of the City of Toronto;
  - (c) With provision for depreciation of the physical plant and equipment based upon an appraisal made by the General Manager of the wearing lifetime and the residual values of the various parts thereof, and with special provision for depreciation of leasehold buildings and improvements based on the duration and terms of the respective leases; and
  - (d) With Sinking Funds as required by Debenture By-laws Nos. 5036, 5918, and 6674 of the Corporation of the City of Toronto.
- (2) That the Sinking Fund liability of \$94,617.20 carried forward in Suspense Account as a charge upon future profits is correct in principle and amount; and that the said sum represents the difference between the total amount of the contract liability of the Corporation of the City of Toronto at 31st December, 1913, in respect of the Hydro-Electric debenture issues and the provision made therefor by the Commission in appropriating from each of the Income accounts for 1912 and 1913 one full year's sinking fund instalment upon the capital debt of the System as it stood at the end of each said year and in appropriating thereto the surpluses of the said years.
- (3) That the whole of the expenditure charged to Capital Account for additions to physical plant and equipment during the year, is properly attributable



thereto; that the charge against Capital Account in respect of debenture discount and expenses is correct in principle and amount, and that the final extinction thereof at the maturity of the respective debenture issues is secured by the operation of the Sinking Fund.

- (4) That the Inventory of stores taken at the end of the year disclosed a large surplus stock on hand—now under investigation for adjustment—for which no credit is taken in the annexed Balance Sheet; that there are errors in the Consumers' Ledgers of approximately \$3,500.00—also under adjustment—for which allowance has been made in the annexed Balance Sheet; and that certain of the general liabilities have yet to be verified by the production of original documents called for by us but not yet received by the officers of the Commission.
- (5) That the accuracy and reasonableness of certain charges against the Corporation of the City of Toronto for the removal of poles, for the supply of motive power to the Civic Street Car System, and for other work, are disputed by the City; that no allowance has been made in the annexed accounts in respect thereof and that while the income of and the expenditure upon the Municipal Light and Power System of North Toronto has been duly incorporated in the annexed accounts, no liability has been assumed therein for its capital value as at the date of its acquisition, for the reason that so far as we can ascertain no agreement has yet been reached by the City and the Commissioners on the matter. If allowances should require to be made by the Commission in the final settlement with the City of these disputes, the amount thereof together with provision for depreciation, interest, and sinking funds for the past year on the portions of the North Toronto System acquired at the time of the annexation will constitute a charge upon next year's income of perhaps from \$6,000 to \$12,000. We are unable, however, by reason of insufficient information, to make a satisfactory appraisal of this contingency, although we do not think from the partial information before us that it will absorb more than the amount stated.

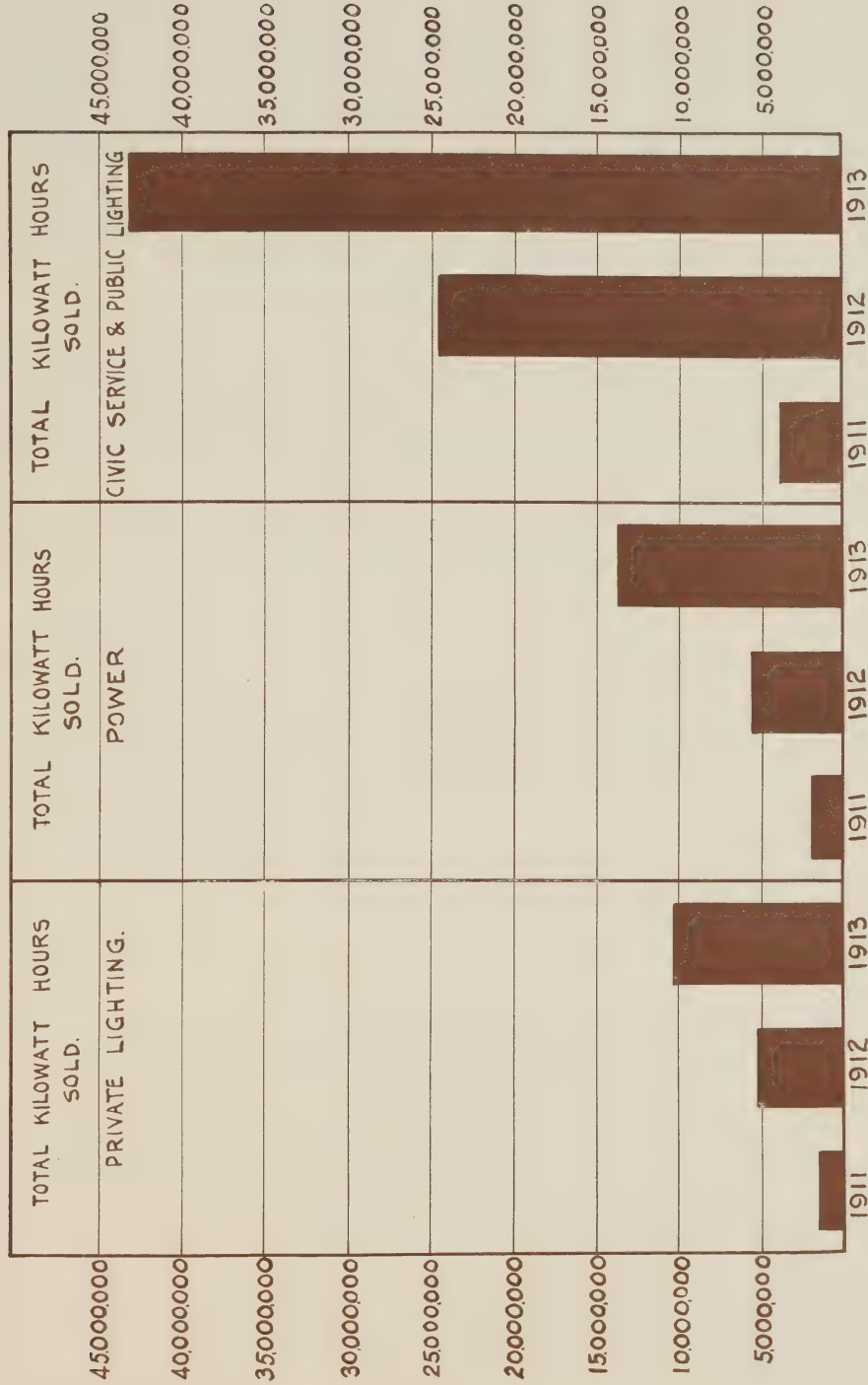
Subject to the above reservations of paragraphs four and five, we certify that our requirements as Auditors have been complied with, and that the annexed Revenue Account and Balance Sheet are, in our opinion, properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Toronto Hydro-Electric System.

Respectfully submitted,

JOHN MACKAY & CO., } Auditors.  
Chartered Accountants, }

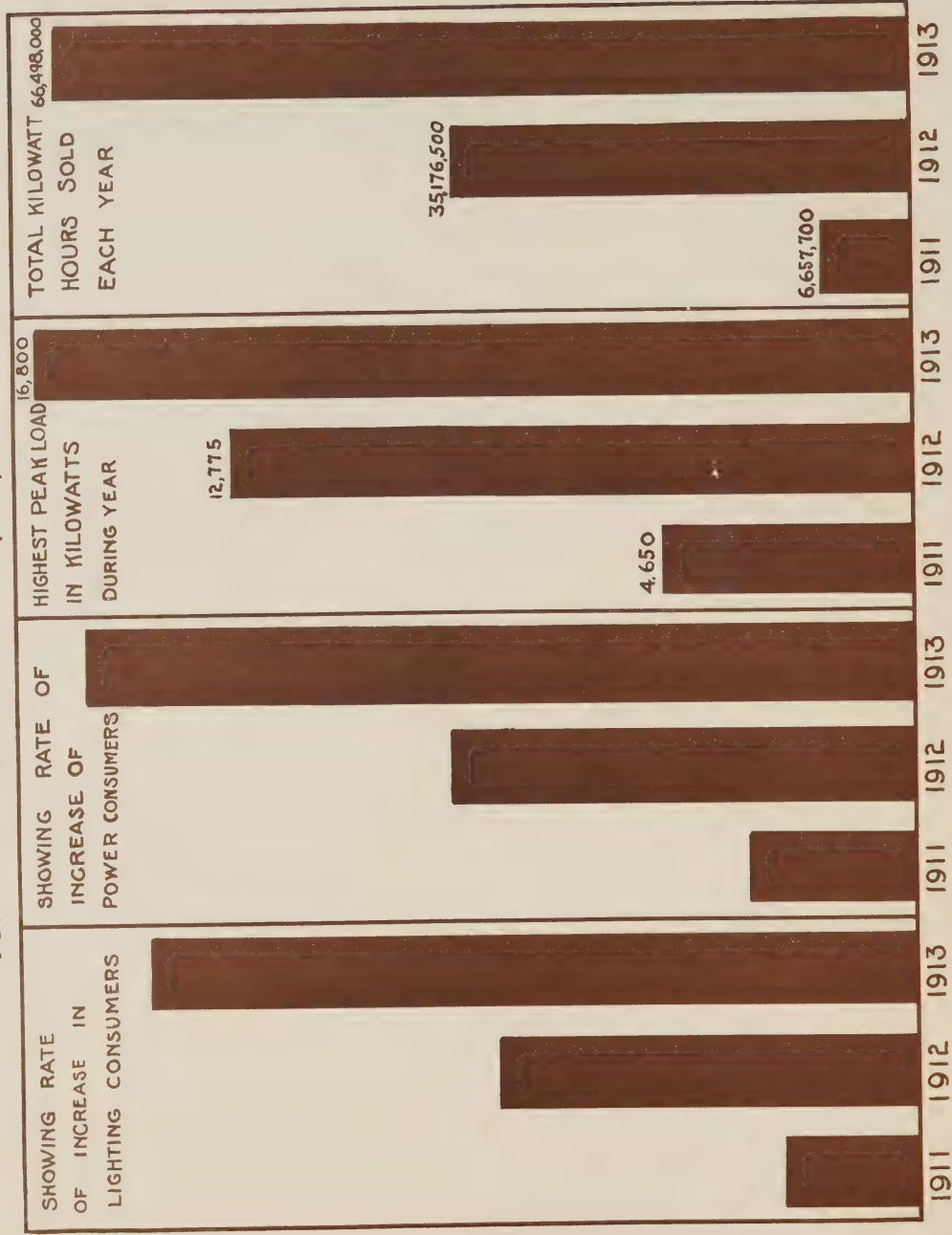
# TORONTO HYDRO - ELECTRIC SYSTEM

## ANNUAL ACCOUNTS (1913) STATISTICS



# TORONTO HYDRO-ELECTRIC SYSTEM

## ANNUAL ACCOUNTS (1913) STATISTICS





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# THE TORONTO HYDRO-ELECTRIC SYSTEM

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THE FOURTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS

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## EXPLANATORY MEMORANDUM

By-law No. 5036 was passed by the Corporation of the City of Toronto on the 27th January, 1908, authorizing the construction and purchase of the works, plant, machinery and appliances necessary for the distribution of electric power in the City of Toronto, and the issue of \$2,750,000 of City of Toronto 4% sinking fund debentures payable on 1st July, 1948, to provide the funds necessary for the cost of the said works, etc. The electric power required was to be supplied from Niagara Falls by the Hydro-Electric Power Commission of Ontario.

On the 4th May, 1908, an agreement was entered into between the Corporation of the City of Toronto and other municipal corporations of the one part, and the Hydro-Electric Power Commission of Ontario of the other part, providing for the construction by the Hydro-Electric Power Commission of Ontario of a transmission line from Niagara Falls to the termini of the contracting municipal corporations and for the transmission over the said line until the 19th December, 1939, of specified quantities of electric power to the City of Toronto and the said municipal corporations, on the terms and conditions recited therein. Subsequently additional municipalities joined in the enterprise. The rates charged the participating municipalities by the Hydro-Electric Power Commission of Ontario for electric power supplied under the said agreement include provision for the repayment of the capital cost of the transmission line within the period of thirty years.

On the 22nd January, 1912, a further By-law (No. 5918) was passed by the Corporation of the City of Toronto, authorizing a further issue of \$2,200,000 of City of Toronto 4% sinking fund debentures payable 1st July, 1948, to provide for the completion of the City of Toronto distributing works and plant, the construction of which has been authorized by By-law No. 5036.

On the 13th October, 1913, an additional By-law (No. 6674) was passed by the Corporation authorizing an additional issue of \$700,000 of City of Toronto 4½% sinking fund debentures payable 1st July, 1953, to provide for additions to the physical system previously authorized.

On the 26th of October, 1914, an additional By-law (No. 7176) was passed by the Corporation authorizing an additional issue of \$1,000,000 of City of Toronto 4½% sinking fund debentures payable

1st January, 1955, to provide for additions to the physical system previously authorized.

The construction of the Distributing System of the City of Toronto was commenced by the Corporation of the City of Toronto as an ordinary branch of the municipal services, but subsequently the completion and the whole management thereof were, by Chapter 119 of the Ontario Statutes of 1911, vested in a Board of three Commissioners styled "The Toronto Electric Commissioners."

The Sections of the Act creating the Commission and defining the duties and powers of the Commissioners are as follows:—

16. The Municipal Electric Light, Heat and Power Works (including any purchased) shall be managed by a Board of Commissioners to be called the Toronto Electric Commissioners, which shall consist of three members. The Mayor of the City shall be ex-officio a member of the Board. One member shall be appointed by the Municipal Council of the City on the nomination of the Board of Control, and no appointment shall be made by such Council in the absence of such nomination, except on the affirmative vote of at least two-thirds of the members of the Council present and voting, and the third shall be appointed by the Hydro-Electric Power Commission of Ontario, and such members so appointed shall hold office for two years and until their successors are appointed.
17. The Board shall perform all the duties, and have all the powers, of Commissioners under The Municipal Light and Heat Act, the provisions of which shall apply, except that the Board shall have power to apply so much of the moneys paid over to the Treasurer of the Municipality under the provisions of that Act, as well as the annual revenues, as the Board may deem necessary in improving or extending the works under its management.
18. Each member of the Commission, except the Mayor, shall be entitled to such annual salary, not exceeding \$4,000, as the Board may determine.

The Commissioners at present are:—

P. W. ELLIS, *Chairman*  
HIS WORSHIP MAYOR CHURCH  
R. G. BLACK



# COMMISSIONERS' REPORT

*To His Worship the Mayor and Members of the Council of the Corporation of the City of Toronto,*

TORONTO.



ENTLEMEN,—

Your Commissioners beg to submit their Fourth Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements of the Toronto Hydro-Electric System for the year ended 31st December, 1914. The accounts have been audited by John Mackay & Company, Chartered Accountants, whose certificate is appended thereto.

**Financial Position as at  
31st December, 1914.**

The operations for the year 1914 have yielded satisfactory results.

The gross income amounted to the sum of.....	\$1,501,291 47
The cost of electric current and the expense of operation and management, including repairs and maintenance, absorbed the sum of.....	874,358 58
Leaving a balance of income on operating account for 1914.	\$626,932 89
Charges and allowances not strictly attributable to the operating expenses for the year 1914, and other charges and allowances applicable to prior years, absorbed the sum of.....	69,536 10
Leaving a balance of net income of.....	557,396 79
The interest, depreciation and sinking funds for the year absorbed the sum of.....	556,513 55
Leaving a balance of net surplus earnings of.....	<u>\$883 24</u>

The whole of the cost of getting and promoting new business has again been met out of the year's income.

The surplus income on operating account for the year 1914, after providing for interest, depreciation and sinking funds, amounted to \$70,419.34. Of this surplus, the sum of \$69,536.10 was absorbed by charges and allowances not strictly attributable to the operating account for the year, and by other charges and allowances arising out of the transaction of previous years, the final net surplus amounting to \$883.24.

The net earnings of \$557,396.79 (after meeting the special charges mentioned, but before providing for interest, depreciation and sinking funds) represent approximately 9½% upon the average amount of capital invested in the fixed plant during the year. No provision having yet been made for working capital as distinct from construction capital, the debt to the Corporation of Toronto for interest and sinking funds has not yet been paid.

#### Progress During 1914.

Satisfactory progress was made during the year 1914. The increase in the gross income over that of 1913 was 29½%. The increase in the commercial income over that of 1913 was 40%. The commercial income for the year amounted to nearly 64% of the total, the municipal income representing the remaining 36%. The following table may prove of interest:—

Particulars	At 31st December, 1913	At 31st December, 1914	Increase
Meters in use.....	24,999	33,976	8,977=36%
Street lanterns in use.....	38,944	40,596	1,652= 4%
	Dec. 1913	Dec. 1914	
Peak load H.P.....	22,520	28,753	6,233=27%

#### Enlargement of System.

Additions to the physical system have been necessitated during the year in connection with street and park lighting, the civic car line supply, and the needs of commercial customers. Further extensions will be required from time to time to meet the demands of the public. By-law No. 7176 was passed by the City Council on the 26th day of October, 1914, authorizing the issue of \$1,000,000 of 4½% forty-year debentures for the purpose of financing the additional expenditure. This By-law was subsequently confirmed by the Ontario Railway and Municipal Board.

#### Reduction of Rates.

A new schedule of rates was adopted as advised by the Provincial Hydro-Electric Commission, as from the beginning of the present year. As the result thereof substantial advantages will be realized by the general public. The following table shows the average reduction that has been effected:—

Class of Service	Reduced Rates: Average per K.W. Hour part of 1915	Old Rates: Average per K.W. Hr. same period, 1914	% Reduction
Residence lighting.....	4.00 cents	4.60 cents	13.1%
Commercial lighting.....	2.85 cents	3.99 cents	28.5%
Commercial power.....	1.31 cents	1.56 cents	16.0%
Street lighting.....	2.12 cents	2.49 cents	14.9%

At this, the close of the first epoch, it may be of interest to point out that the old rates, established at the inception of the undertaking and continued in force until the 31st December, 1914, covering a period of a little over three full working years, resulted in net earnings, after meeting all operating and special expenses, to the amount of \$1,261,718.78. The sum so earned is the equivalent of the whole of the interest chargeable against Revenue, the whole of the depreciation Reserve Fund set up in respect of the general system, the whole of the sinking fund charges attributable to the operating period, and \$33,914.54 on account of the sinking fund charges attributable to the construction period. Not a dollar has been charged to Capital Account that should have been charged to Revenue; the enterprise has, therefore, fully paid its way and earned a surplus, after dealing in the most conservative manner with its accounts. The second epoch opens with a new scale of reduced rates, and it is hoped that the growth of business under the stimulus thereof will fully vindicate the reduction.

The Hydro-Electric System has conferred substantial advantages upon the power and light consumers of this City, as the following table will show:—

Class of Service	Former Non-competitive rates K.W. Hour	New reduced rates K.W. Hour (Average)	Montreal Private Corporation Rates K.W. Hour
Residence lighting.....	8 cents	4.00 cents	6 to 7.6 cents
Commercial lighting.....	8, 10 & 12 cents	2.85 cents	5 to 7.6 cents
Commercial power.....	2½ to 6 cents	1.31 cents Equal to average of \$20 per H.P. per annum.	\$30 to \$100 Per H.P. per annum.

**Labour  
Conditions.**

No less than three arbitrations on the matter of wages were brought about between the year 1913 and date, the two latter under the Lemieux Act, as a result of which the wages of a majority of the System were materially increased under the first two arbitrations, while under the third a further advance was recommended, to become effective from May 1st, 1916. The employees of the System have, therefore, shared with the power and light consumers the general benefits of the undertaking. The Workmen's Compensation Act will also tax the future income of the System.

**Patriotic  
Expenditure.**

Your Commissioners believe that they properly interpreted public sentiment in authorizing a subscription of \$5,000 to the Toronto and York Patriotic Fund and the payment of reasonable allowances to employees on active service. Legislative sanction for these expenditures will be applied for at the next session of the Legislature.

**Conclusion.**

This opportunity is taken of testifying to the efficient services of the General Manager and the staff, and of thanking the general public for their continued confidence and support. The Toronto Hydro-Electric System is the largest single unit of the Provincial System, and your Commissioners look forward with confidence to the future development of this public movement. They will contribute to its success, so far as in them lies, by a loyal co-operation with the Provincial Commission and the other Municipalities participating therein. As the Toronto System grows, further capital expenditure will be required. For every dollar so expended a corresponding asset will, however, be acquired. The Great War has laid a burden of prudence and caution upon all concerned. Your Commissioners are very sensible of this obligation, and will give it due weight in all extension proposals. They are content to be judged by the effect of their administration.

Respectfully submitted

BY THE BOARD OF COMMISSIONERS:

P. W. ELLIS,  
*Chairman.*

T. L. CHURCH,  
*Mayor.*

R. G. BLACK.

## AUDITOR'S CERTIFICATE

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TORONTO GENERAL TRUSTS BUILDING,  
85 Bay Street,  
TORONTO, 17th August, 1915.

*The Toronto Electric Commissioners,  
Toronto.*

GENTLEMEN,—

We have audited the annexed Revenue Account and Balance Sheet with the books, accounts and inventories of stores, etc., relating thereto, and we report thereon as follows:—

That the value of stores, supplies and apparatus on hand and on loan has been accepted by us on the faith of inventories prepared and certified by Officials of the System; that a subscription of \$5,000.00 to the Toronto and York Patriotic Fund has been authorized by the Commission of which \$1,000.00 had been paid at the 31st December, 1914, and that grants to or for the benefit of employees on active service to the amount of \$3,235.86 have been authorized by the Commission and paid, for which no adequate authority has yet been submitted us; that the titles to the Real Estate and Easements acquired have not been passed upon by us; and that, subject to the foregoing, we certify our requirements as Auditors have been complied with, and that, in our opinion, the said Revenue Account and Balance Sheet are properly drawn up so as to exhibit a true and correct view of the state of affairs of the Toronto Hydro-Electric System as at the 31st December, 1914.

Respectfully submitted,

(Sgd.) JOHN MACKAY & CO.,  
Chartered Accountants,  
*Auditors.*



# REVENUE ACCOUNT OF THE CITY OF TORONTO HYDRO-

## SECTION I: SHEWING NETT EARNINGS

CHARGES	AMOUNT	TOTAL
To Cost of electric current.....	\$324,236 97	
To Expenses of operation and management including repairs, maintenance and accrued charges; provision for special depreciation of leasehold buildings and improvements (\$9,940,48), and provision for losses on accounts receivable and contingencies arising out of the year's business.....	550,121 61	\$874,358 58
To Balance: Nett income from operations of year, carried forward.....		626,932 89
		<u>\$1,501,291 47</u>
To Miscellaneous charges not strictly attributable to operating expenses for this year, viz: cost of preparing detailed inventory of physical plant; provision for depreciation in value of certain slow moving stores on hand; legal costs and damages in Egan suit; sundry charges against prior years including provision for contingent rental liability, for allowance on civic car line account, and for other contingencies in respect of unsettled matters, not provided for in revenue account for 1913 and reported accordingly in paragraphs 4 and 5 of auditors' report on 1913 accounts.....		\$69,536 10
To Balance of nett earnings available for fixed charges, carried forward to Section II.....		557,396 79
		<u>\$626,932 89</u>

## SECTION II: SHEWING DISPO

To Interest for year.....	\$250,309 57	
To Depreciation for year.....	217,519 65	
To Sinking funds for year:—		
Under City By-law No. 5036.....	\$36,471 00	
Under City By-law No. 5918.....	34,254 00	
Under City By-law No. 6674.....	9,283 00	
Interest on past due Sinking fund instalments.....	8,676 33	
	88,684 33	\$556,513 55
To Surplus: carried to balance sheet.....		883 24
		<u>\$557,396 79</u>

## ANALYSIS OF

Total Income for year.....	
Absorbed by expenses and charges of year's business:	
Cost of current.....	
Expenses of operation, maintenance and management.....	
Interest, depreciation and sinking funds.....	
Totals for year.....	
Absorbed by miscellaneous charges and allowances not attributable to this year	
Surplus.....	

FROM TOTAL OPERATIONS FOR YEAR

By Nett income from operations of year, brought down.....	\$626,932 89
---	--------------

\$626,932 89

By Net earnings available for fixed charges brought down from Section I.....	\$557,396 79
--	--------------

\$557,396 79

..... \$1,501,291 47=100%

	\$324,236	97=21.60%
	550,121	61=36.64%
	556,513	55=37.07%
	\$1,430,872	13=95.31%
operations.....	69,536	10=4.63%
	883	24=.06%

\$1,501,291 47=100%

# BALANCE SHEET AS AT 31ST DECEMBER, 1914, OF

<u>ASSETS</u>			
<u>FIXED</u>		AMOUNT	TOTAL
To Capital expenditure on:—			
Lands, buildings, transmission system, sub-station equipment and feeder system, distribution system, municipal street lighting system, line transformers, meter equipment and devices, general office, stores department, utility department and miscellaneous equipment, and exhibition construction and equipment		\$5,237,451 74	
To Leasehold premises and improvements.....		72,263 46	
		\$5,309,715 20	
To Debenture discount and expenses.....		951,765 56	
			\$6,261,480 76
 <u>LIQUID</u>			
To Stores on hand and apparatus on loan.....		\$410,372 60	
To Accounts receivable, less provision for estimated losses (including orders in progress).....		288,897 72	
To Cash:—			
In Bank.....	\$260,708 69		
On Hand.....	3,131 52		
		263,840 21	
To Prepaid charges .....		3,649 16	
			966,759 79
To Sinking fund suspense account:—			
Balance chargeable upon future surpluses (as at 1st January, 1914).....		\$94,617 20	
Deduct: Surplus as at 31st December, 1914.....		883 24	
			93,733 96
			 \$7,321,974 51

# THE CITY OF TORONTO HYDRO-ELECTRIC SYSTEM

## LIABILITIES

ON CURRENT ACCOUNT		AMOUNT	TOTAL
By Sundry accounts payable, including provision for accrued charges and contingencies.....			\$228,227 18
By Corporation of the City of Toronto:—			
For interest due and accrued to date.....			524,435 62
For sinking funds due and accrued to date as follows:—			
Under By-law No. 5036:			
Instalments.....	\$237,061 50		
Interest thereon.....	20,622 01		
		\$257,683 51	
Under By-law No. 5918:			
Instalments.....	\$102,762 00		
Interest thereon.....	3,386 23		
		106,148 23	
Under By-law No. 6674:			
Instalments.....	\$13,924 50		
Interest thereon.....	139 25		
		14,063 75	
			377,895 49
	Total.....		\$1,130,558 29
ON CAPITAL ACCOUNT			
By Corporation of City of Toronto:—			
By-law No. 5036: Cash advanced	\$2,240,124 55		
Debenture discount and expenses	509,875 45		
		\$2,750,000 00	
By-law No. 5918: Cash advanced	\$1,816,774 89		
Debenture discount and expenses	383,225 11		
		2,200,000 00	
By-law No. 6674: Cash advanced	\$641,335 00		
Debenture discount and expenses	58,665 00		
		700,000 00	
Total debt under By-laws.....		\$5,650,000 00	
Additional advances.....		85,199 51	
			5,735,199 51
ON SURPLUS ACCOUNT			
By Depreciation reserve fund:—			
In respect of general system after providing out of income for repairs and maintenance:			
Brought forward from 1913...	\$234,526 76		
Appropriated in 1914.....	217,519 65		
	\$452,046 41		
Less: Charges to date.....	17,891 19		
		\$434,155 22	
In respect of leasehold property:			
Brought forward from 1913...	\$12,121 01		
Appropriated in 1914.....	9,940 48		
		22,061 49	
			456,216 71
			\$7,321,974 51

## COMPARATIVE STATEMENT SHEWING GROWTH OF BUSINESS IN 1914

Income	Amount, 1913	Amount, 1914	Increase or Decrease	
			Amount	%
Commercial lighting.....	\$411,905 17	\$576,684 66	Inc. \$164,779 49	40.00
Commercial power.....	229,615 08	330,466 35	Inc. 100,851 27	43.92
Exhibition light and power.	22,525 87	20,334 93	Dec. 2,190 94	9.73
Municipal buildings lighting.	12,270 76	18,495 10	Inc. 6,224 34	50.72
Municipal power.....	117,093 80	157,700 60	Inc. 40,606 80	34.68
Municipal street lighting.....	344,933 79	364,214 17	Inc. 19,280 38	5.59
Other municipalities.....	419 00	1,610 52	Inc. 1,191 52	284.37
Sundry other sources.....	20,576 24	31,785 14	Inc. 11,208 90	54.48
	\$1,159,339 71	\$1,501,291 47	Inc. \$341,951 76	29.50

## STATEMENT SHEWING IMPROVEMENT IN COMMERCIAL BUSINESS IN 1914

Income	1913		1914	
	Amount	% of Total	Amount	% of Total
Commercial Income—				
Lighting.....	\$411,905 17	35.53	\$576,684 66	38.42
Power.....	229,615 08	19.81	330,466 35	22.01
Exhibition and sundry.....	43,102 11	3.71	52,120 07	3.47
Total commercial income.....	\$684,622 36	59.05	\$959,271 08	63.90
Total municipal income .....	474,717 35	40.95	542,020 39	36.10
Grand Total.....	\$1,159 339 71	100.00	\$1,501,291 47	100.00

Increase on Total Commercial  
 Business \$274,648.72 or 40.12 %  
 Gain on 1913



# GENERAL MANAGER'S ANNUAL REPORT

---

*The Toronto Electric Commissioners.*

GENTLEMEN,—

Herewith I beg to submit my report on certain features of the year's working to 31st December, 1914.

It will be seen from the Accounts that after making full provision for all liabilities, including Interest and Sinking Fund, and setting aside about \$217,500.00 for Depreciation, there is a surplus on the year's working amounting in round figures to \$70,400.00, which has been appropriated as shown in the accounts.

A comparison of the Surplus for the last three years is as follows:—

1912	1913	1914
\$13,555.41	\$34,575.87	\$70,419.34

## **Engineering Details.**

The year has been mainly devoted to consolidating the System and improving the service, together with such extensions as were necessary to deal with the requirements of the immediate future.

Owing to the outbreak of war and the difficulty of obtaining funds, capital expenditure was curtailed to the greatest possible extent.

The following are among the more important works put in hand during the year:—

Extension of the Terminal Station.

New Substation at Eastern Avenue.

Extension of Substation sites or new sites secured for: Duncan Street Substation, East End Substation, Sterling Road Substation.

The work on these Substations has since been put in hand.

In addition the following work was commenced:—

Remodelling the general distribution system.

New system for down-town private lighting with underground sub-stations.

Rearrangement of the direct current system in the down-town district.

Installation of a system of recording instruments.

Installation of additional regulators.

As will be seen, a considerable portion of the foregoing work is for the purpose of giving an improved service, and is not directly remunerative. The main object of the Commissioners is to give the best possible service at the lowest cost.

#### **General.**

The year 1914 was, generally speaking, one of consolidating the position of the enterprise and reviewing what had gone before, making such adjustments as were necessary and practicable. This involved considerable expenditure apart from the special items taken care of out of the surplus of the year, and had a material bearing on the cost of working for the year.

In spite of the conditions arising out of the war, and the previous depression, the nett increase in consumers connected to the System during the year amounted to over 9,000. This represented an increase of over 40% for the year.

The total number of consumers connected to the System at the end of the year was over 31,500 and their connected load over 88,000 horse-power.

The increased sale of current has not been in proportion to the new connections, however, largely due to the fact that many old consumers' requirements were reduced very greatly by the war. There has, however, been a very satisfactory overall increase in spite of this.

Another branch of activity, often overlooked, is the Appliance Department, the main object of which is to increase the sale of current.

During the year under review, over 5,600 irons, among other things, were disposed of. Taking these alone on the basis of three hours' use a week, this would mean about 480,000 K-W hours per annum, which at the old rates would produce an annual reveque of about \$13,000.00.

With the new rates, which are more calculated to encourage long hour use, it is anticipated that a still greater impetus will be given to the use of appliances and also cooking.

A series of cooking lectures were given by an expert lady cook under the Hydro auspices at the Foresters' Hall in the early part of the year, when there was a large and appreciative attendance. Although not productive of immediate results, these lectures aroused a great deal of public interest which has since materialized.



IMPROVED DOWN TOWN



FIVE LIGHT CLUSTERS



FIRE ALARM FITTING



INTERSECTION LIGHTING



UNDERGROUND LOCAL IMPROVEMENT PLAN

### **Street Lighting.**

Approximately 2,400 lamps have been added during the year, making to the end of 1914 a total the equivalent of 40,800 100-watt lamps.

A special underground lighting system on the Local Improvement plan was installed in Chestnut Park Road.

A number of experiments have been carried out in order to demonstrate new and more efficient types of lamps and system of lighting generally. The cost of these experiments, which is considerable, has been defrayed from the revenue of the System.

An offer was made to the City to convert the whole of the 5-light cluster pillars in the down-town district to single light 500-watt half-watt lamps, thereby increasing the light over 100%. The whole of the expense of the change was to be borne by the System, the City paying the same annual charge as before. The City Council, however, preferred the alternative offer, viz., a reduction at the rate of \$1.00 per lamp per annum.

Part of Richmond and Toronto Streets have been equipped with the improved down-town type of lighting since the end of 1914, with very satisfactory results.

An offer of improved lighting throughout the remainder of the City was made on the same principle, but with similar result.

Red lights to indicate the location of the Fire Alarm boxes have also been installed throughout the City.

During the year a number of street intersection lights have been erected.

Illustrations of the different types of Street Lighting in the city are shown on page No. 17.

### **Curves.**

Curves are given showing the following in graphic form:—

- (a) Growth of the Business. (See page No. 22.)
- (b) Typical System Load Curves—Summer and Winter. (See page No. 23.)
- (c) K-W Hours Sold (total and individual services). (See page No. 24.)
- (d) Revenue from Sale of Current. (See page No. 25.)



(e) Capital Expenditure, Peak Load, Price per K-W Hour Sold, Surplus. (See page No. 26.)

An examination of these will show:—

(a) GROWTH OF THE BUSINESS.—That the private services have increased at a very much greater rate than the Civic.

(b) SYSTEM LOAD CURVES.—The extent to which the supply is taken by the consumers throughout a representative Summer and Winter day.

(c) K-W HOURS SOLD.—That although there is a larger K-W hour consumption by the Civic services, it will be seen from (d) that the total revenue therefrom is much smaller than that from the private services. Curve (b), however, shows the relative demands of the two classes of service. Considered as a whole, these afford an illustration of the fact that the Civic services can, due to the character of the demand, be supplied at a much cheaper rate than the private services.

(d) GENERAL.—This curve clearly demonstrates that the rate actually obtained from the sale of electrical energy was lower this year in the case of both the private and Civic services.

It will be noticed that the Capital Expenditure has not increased to the same extent as the peak load.

**Roll of Honour.** I have included the Honour Roll of those men who have gone to the front or are at present in training. The list is brought up to August 31st, 1915.

Under the policy adopted by the Commissioners in the case of the regular men the System has paid the difference between the Government pay and the rate of wages previously received from the System.

In conclusion, I would point out that to avoid dealing with the same subject twice, reference to a number of points has been omitted, which are dealt with elsewhere.

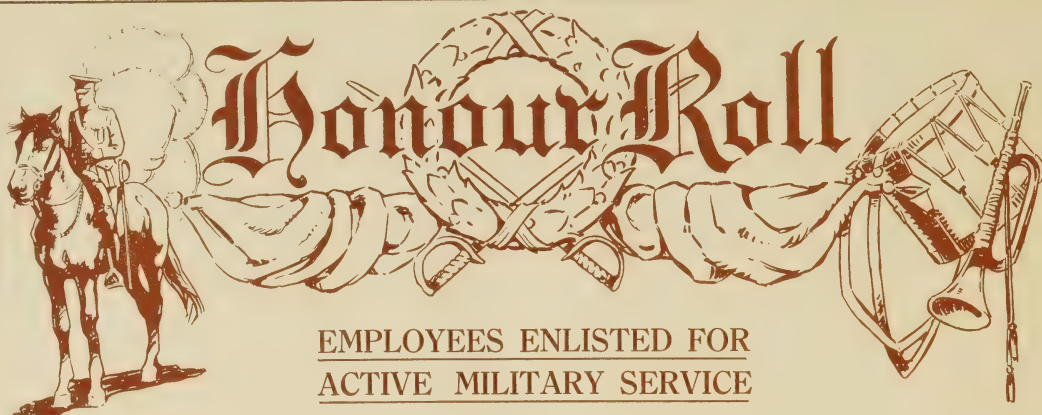
It is with pleasure that I record my appreciation of the valuable services rendered by the staff in connection with the undertaking.

I am, Gentlemen,

Your obedient servant,

H. H. COUZENS,

*General Manager.*



## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### REPORTED KILLED IN ACTION

NAME	REGIMENT OR BATTALION	RANK
J. DUGUID	Gordon Highlanders	Private
	(British Army Reservist)	
F. HOUSE	48th Highlanders	Private

### REPORTED DIED OF GAS POISONING

J. DEWAR	Queen's Own Rifles	Private
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### REPORTED WOUNDED

S. PETERS	3rd Battalion	Corporal
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### REPORTED MISSING

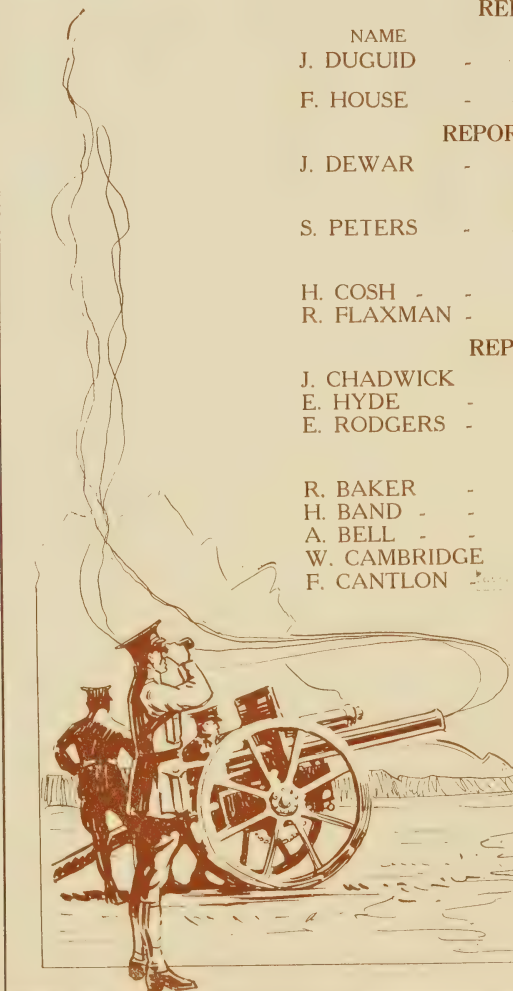
H. COSH	Prin. Pat. Can. Light Infantry	Private
R. FLAXMAN	15th Battalion	

### REPORTED PRISONERS OF WAR

J. CHADWICK	15th Battalion	L.-Corporal
E. HYDE	3rd Battalion	Private
E. RODGERS	48th Highlanders	Sergeant

### ON ACTIVE SERVICE

R. BAKER	"Surplus" Battalion	Private
H. BAND	48th Highlanders	Private
A. BELL	Can. 2nd Field Ambulance	Private
W. CAMBRIDGE	92nd Battalion	Private
F. CANTLON	Queen's Own Rifles	Private
A. CARSWELL	92nd Battalion	Private
P. CHAPMAN	No. 5 Co., Can. Army Service	Corporal
R. CLAPTON	3rd Battalion	Private
A. COULTER	Queen's Own Rifles	Ser.-Maj.
A. COULTHARD	3rd Battalion	Private
W. COWAN	2nd Div. Cycle Corps	Private
H. CUNNINGHAM	5th Field Ambulance	Private
G. DENNISTON	Roy. Can. Horse Art.	
A. FERGUSON	92nd Battalion	Private
J. FOLLANSBEE	Queen's Own Rifles	Private
W. GIBSON	Queen's Own Rifles	Private
J. GILSON	20th Battalion	Private
W. GRAHAM	19th Battalion	Private



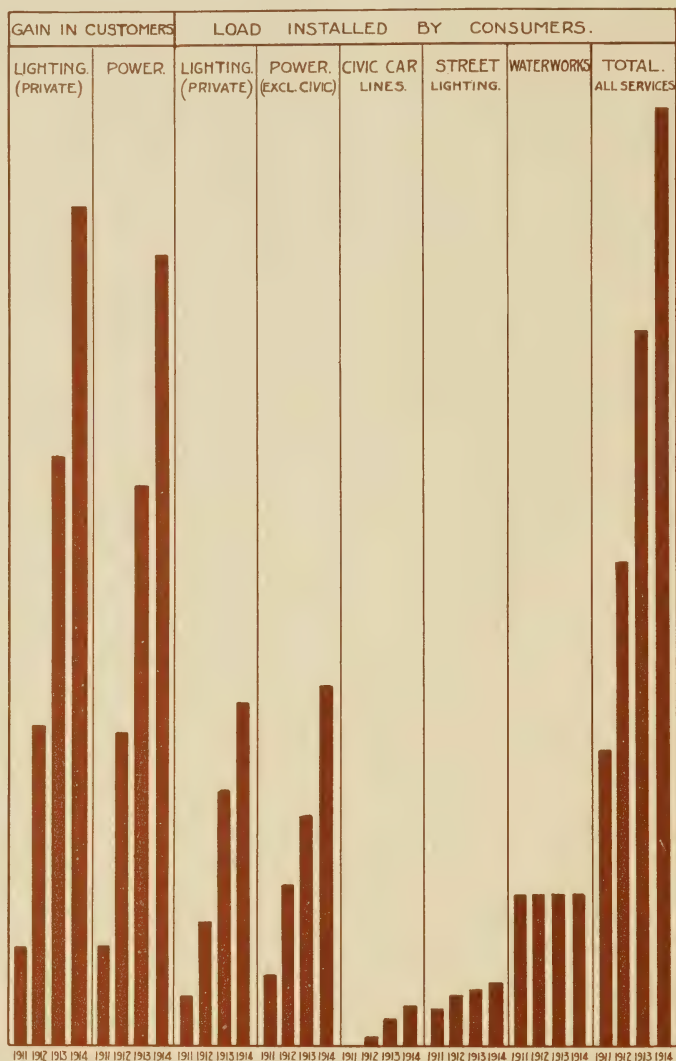




### ON ACTIVE SERVICE (Continued)

NAME	REGIMENT OR BATTALION	RANK
G. HARRIS	3rd Battalion	Private
A. HART	48th Highlanders	Private
A. HEARD	20th Battalion	Private
A. HUGHES	48th Highlanders	Private
J. JACKSON	Royal Can. Horse Artillery	Driver
H. JEX	Can. Army Service Corps	Private
T. JOHNSTONE	1st Can. Ammunition, Sub. Park	Chaufeur-Mechanic
R. JONES	Queen's Own Rifles	Private
A. KEAN	Can. Army Service Corps	Baker
T. KIRKPATRICK	26th Battery, Artillery	Gunner
D. LAIDLAW	92nd Battalion	Private
J. MANSON	No. 12 Co., Can. Army Service	Sergeant
A. McFADDEN	36th Peel Regiment	Private
F. McKEEGAN	1st Clearing Hospital	Private
H. McTAVISH	Eaton Machine Gun Battery	Sergeant
E. MEESON	Can. Army Service Corps	Corporal
R. MEESON	92nd Battalion	Private
C. MILLER	12th York Rangers	Private
S. MUNRO	26th Battery, Artillery	Gunner
J. NIXON	3rd Battalion	Corporal
C. NOBLE	Can. Army Service Corps	Private
C. OLIES	92nd Battalion	Private
R. PEARCE	74th Battalion	Private
C. PRATER	No. 4 Can. General Hospital	Private
W. REID	Can. Div. Cycle Corps	Private
W. ROBERTSON	92nd Battalion	Private
W. RUSSELL	Corps of Guides	Private
R. SANDFORD	92nd Battalion	Private
T. SIMPSON	92nd Battalion	Private
W. STEEL	2nd Div. Headquarters Staff	Sergeant
T. STEWART	92nd Battalion	Private
W. THORNTON	75th Battalion	Private
J. TILSTON	Can. Overseas Rail. Constr. Cps.	Sapper
R. WHITEMAN	Queen's Own Rifles	Private
E. WILSON	92nd Battalion	Private
J. WITHERS	Can. Field Artillery	
J. WOOLLEY	19th Battalion	Private
A. WRIGHT	74th Battalion	Sergeant

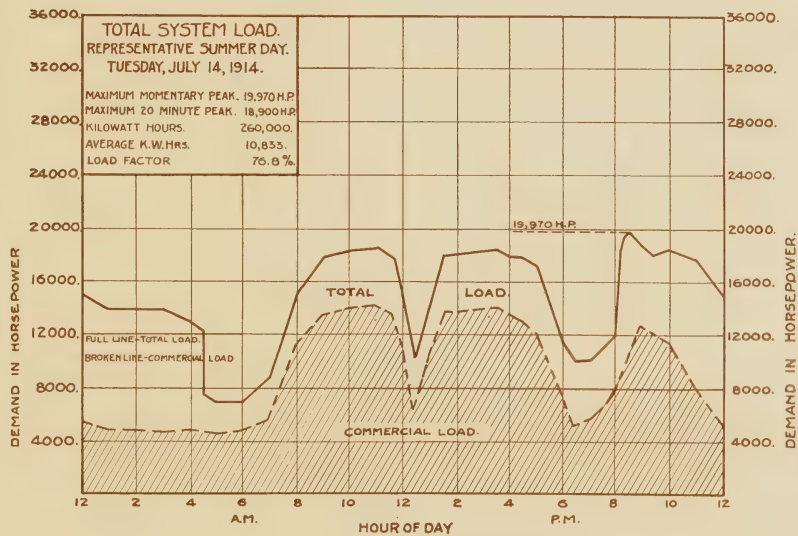
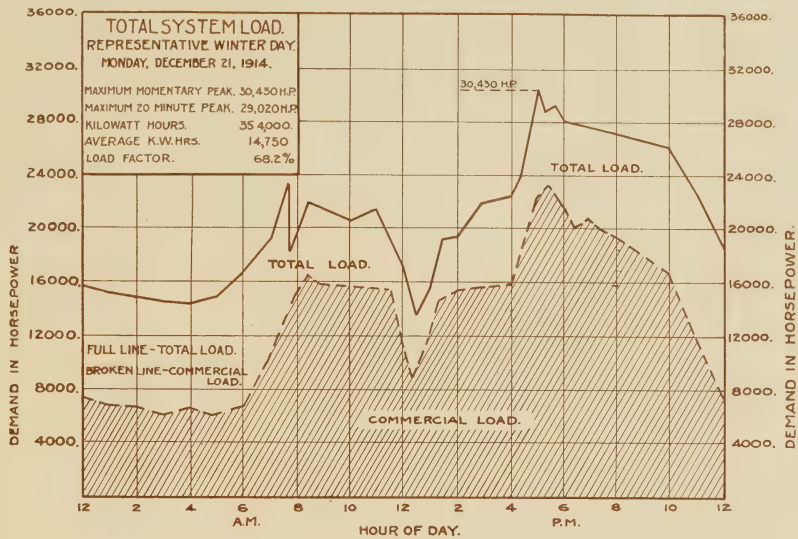




## GROWTH OF BUSINESS YEAR BY YEAR

SEPARATE SERVICES.

TORONTO HYDRO-ELECTRIC SYSTEM.  
1914 REPORT.

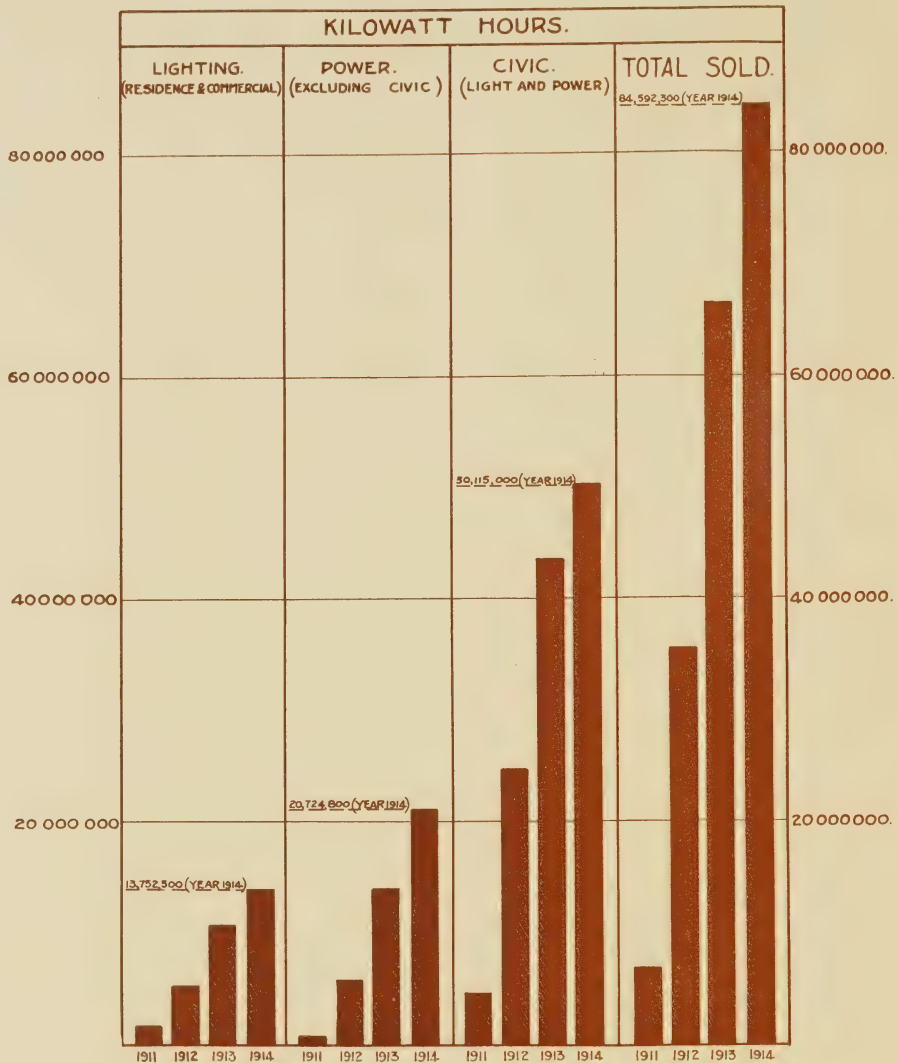


**LOAD CURVES - SUMMER AND WINTER.**  
**(COMMERCIAL AND TOTAL.)**

TORONTO HYDRO-ELECTRIC SYSTEM.

1914 REPORT.

## SALE OF ELECTRICAL ENERGY.



## SALE OF ELECTRICAL ENERGY.

YEAR BY YEAR.

TORONTO HYDRO-ELECTRIC SYSTEM.

1914 REPORT.

## REVENUE FROM SALE OF CURRENT.

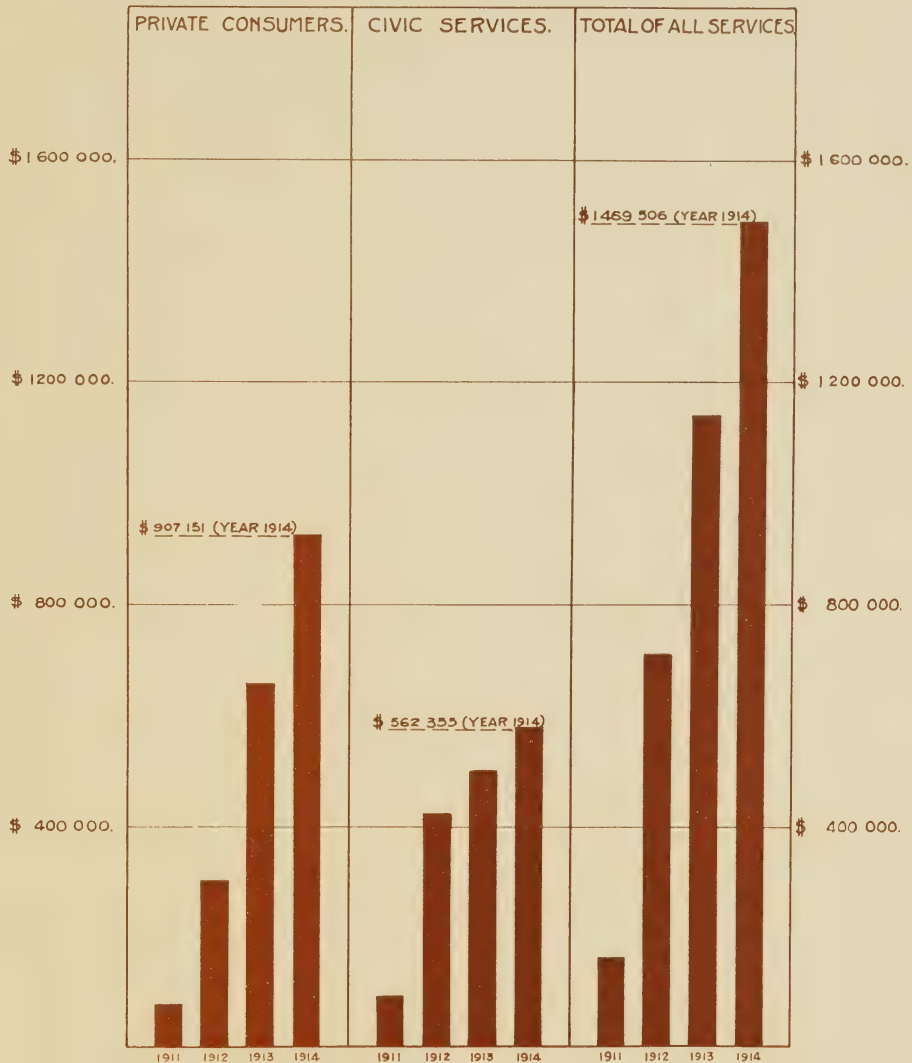
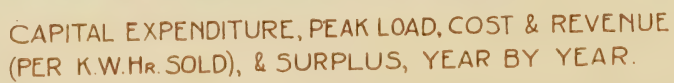


DIAGRAM SHOWING THE COMPARATIVE GROWTH OF  
THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES  
OF SERVICE YEAR BY YEAR.

TORONTO HYDRO-ELECTRIC SYSTEM.  
1914 REPORT.







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# The TORONTO HYDRO ELECTRIC SYSTEM



FIFTH  
ANNUAL REPORT  
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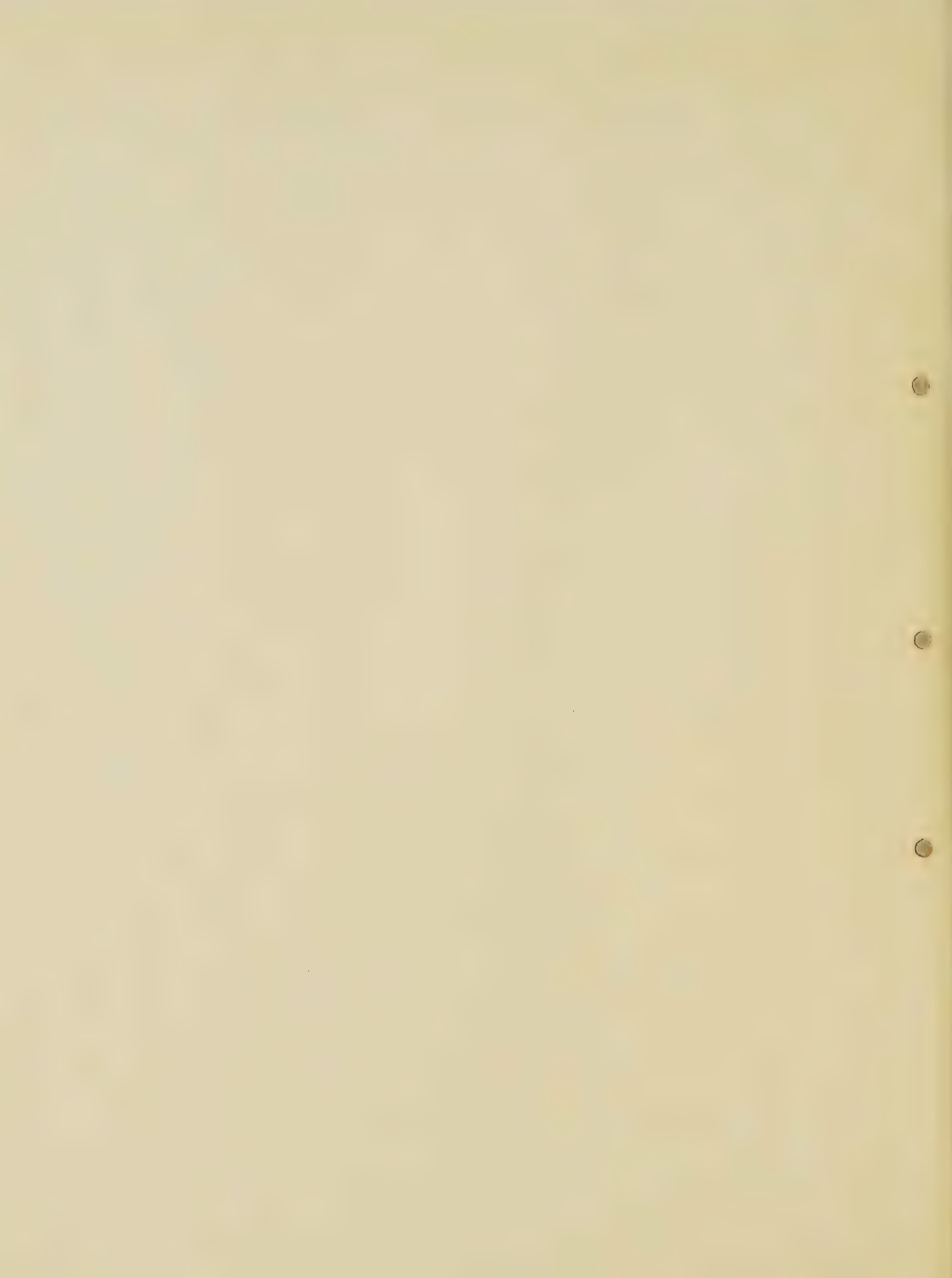
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# THE TORONTO HYDRO-ELECTRIC SYSTEM

*With the compliments of  
The Commissioners*

THE FIFTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS



## Historical and Explanatory Memorandum

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A SHORT summary of the antecedents of the Toronto Hydro-Electric System may not be out of place. The public Hydro-Electric Power movement in the Province of Ontario which culminated, so far as the City of Toronto is concerned, in the establishment of the Toronto Hydro-Electric System falls into three distinct stages, viz., the stage of "Agitation," the stage of "Investigation" and the stage of "Construction and Operation." The Municipal Council of the City of Toronto had interested itself in the project of establishing a civic electric lighting plant as early as the year 1894; but it was not until the early part of 1900 that the definite conception was formed of utilizing the water power of Niagara Falls for the purpose. In February of that year Alderman F. S. Spence was mainly instrumental in procuring the adoption of a resolution by the City Council recommending that application be made to the Legislature to empower the City to embark upon the enterprise of developing hydro-electric power at Niagara Falls, and supplying the City of Toronto with its requirements from that source. Concurrently with this action on the part of the City Council, a committee was appointed by the Toronto Board of Trade to report upon the same project. The late Mr. W. E. H. Massey was the Chairman of the Committee which in April 1900 brought in a report upon the matter which greatly stimulated public interest therein. During the ensuing two years the Canadian Manufacturers' Association, many of the Provincial Boards of Trade, several of the municipalities of Ontario, a number of representative manufacturers, and the press generally, displayed great interest and activity in focussing and educating public opinion on the question. It is impossible to incorporate in this brief outline the details of the various steps taken and the names of those who, with great public spirit, assisted in these steps. It is only right, however, to state that among those who gave their time ungrudgingly to the matter, Mr. E. W. B. Snyder, of St. Jacobs, and Mr. D. B. Detweiler, of Waterloo, took a prominent place. As a result of the labours thus shortly summarized the stage of investigation was naturally reached. In the year 1903 a Commission was appointed under legislative authority to enquire on behalf of certain Municipalities into the method and cost of generating and transmitting Niagara electric power. The expenses of the Commission were defrayed by the Municipalities of Toronto, London, Brantford, Stratford, Woodstock, Ingersoll and Guelph. The Commission itself was composed of Mr. E. W. B. Snyder, of St. Jacobs, Chairman; Mr. P. W. Ellis, of Toronto, Vice-Chairman; The Hon. Adam Beck, M.P.P., of London

(now Sir Adam Beck), Mr. W. F. Cockshutt, M.P., of Brantford, and Professor R. A. Fessenden, a Canadian Electrical Engineer. After a thorough investigation of the question, the Commissioners submitted a report in March, 1906, which dealt very thoroughly with the whole question of the generation, transmission and distribution of Niagara power for the benefit of the participating Municipalities, and the cost thereof. Subsequently, another Commission was appointed by the Government of the then Honourable Mr. Whitney, to conduct further investigations in other areas of the Province, into the same question. This Commission was originally composed of The Honourable Adam Beck, M.P.P., of London (now Sir Adam Beck), Chairman; Mr. George Pattison, of Preston, and Mr. P. W. Ellis, of Toronto. During a short period of ill health Mr. Ellis found it necessary to retire from the Commission, whereupon Mr. John Milne, of Hamilton, was appointed in his place.

The investigation in question together with the whole volume of public opinion which had now been thoroughly awakened and informed upon the general Electric Power question, resulted in the creation by Statute in May, 1906, of the Hydro-Electric Power Commission of Ontario. This Commission was originally composed of the Hon. Adam Beck, M. P. P., of London (now Sir Adam Beck), Chairman; the Hon. J. S. Hendrie, M.P.P. of Hamilton (now Sir John Hendrie), and Mr. C. B. Smith, of Toronto. Subsequently Mr. Smith died, and Mr. W. K. McNaught, C.M.G., M.P.P., of Toronto, took his place, and upon the acceptance of the Lieutenant-Governorship of the Province by the Hon. Mr. Hendrie, the Hon. Mr. Lucas, M.P.P., Attorney-General of the Province of Ontario, was appointed in his place.

The Hydro-Electric Power Commission of Ontario has been given by statute wide powers to enable it to carry out electrical transmission undertakings on behalf of such municipalities of the Province as desire the benefits thereof. The constitution therefore of this Commission in the year 1906 marks the beginning of the third stage of construction and operation. The City of Toronto, following the policy it had adopted from the beginning, of participating in all the forward movements, passed in the year 1908 its first By-law authorizing the construction of the Toronto Hydro-Electric Distributing System. On the 4th May, 1908, an agreement was also entered into between the Corporation of the City of Toronto and certain other municipal corporations of the one part, and the Hydro-Electric Power Commission of Ontario of the other part, providing for the construction by the Hydro-Electric Power Commission of

Ontario of a transmission line from Niagara Falls to the termini of the respective contracting municipal corporations, and for the transmission over the said line until the 19th December, 1939, of specified quantities of electric power to the said municipal corporations, on the terms and conditions recited therein. Subsequently additional municipalities joined in the enterprise. The rates charged the participating municipalities by the Hydro-Electric Power Commission of Ontario for electric power supplied under the said agreement include provision for the repayment of the capital cost of the transmission line within the period of thirty years.

The construction of the Distributing System of the City of Toronto was commenced by the Corporation of the City of Toronto as an ordinary branch of the municipal services, but subsequently the completion and the whole management thereof were, by Chapter 119 of the Ontario Statutes of 1911, vested in a Board of three Commissioners styled "The Toronto Electric Commissioners." The Commissioners first appointed to the office who assumed control on the 1st June, 1911, were:

P. W. ELLIS, ESQ., Chairman,

*Appointed by the Corporation of the City of Toronto.*

HIS WORSHIP MAYOR GEARY, K.C.

*Mayor of Toronto.*

H. L. DRAYTON, ESQ., K.C. (now Sir H. L. Drayton, K.C.)

*Appointed by the Hydro-Electric Power Commission of Ontario.*

Subsequently Sir Henry Drayton retired to assume the Chairmanship of the Railway Commission of the Dominion of Canada, a most responsible position which he still holds. Shortly afterwards, Mr. Geary, K.C., retired from the Mayoralty to assume the position of Corporation Counsel to the Municipal Corporation of Toronto. Mr. Geary, however, shortly after the outbreak of war, patriotically volunteered for overseas service. His Worship Mayor Hocken took the place vacated by Mr. Geary, K.C., while Mr. R. G. Black of Toronto, an electrical engineer of long experience and high standing, was appointed by the Hydro-Electric Power Commission of Ontario to take the place vacated by Sir Henry Drayton. Upon the election of His Worship Mayor Church to the Mayoralty of the City, His Worship took the place on the Commission vacated by Ex-mayor Hocken. Mr. P. W. Ellis, immediately after his first appointment to the Commission, was unanimously elected Chairman, an office which he has held at the unanimous request of his colleagues ever since.



The work and progress of the Commission has been made public from year to year by means of its Annual Reports. The fifth of the series is annexed hereto. The various By-laws passed by the Corporation of the City of Toronto, up till the end of 1915, to provide for the construction and extension of the enterprise, are as follows:—

No. of By-law	Date of By-law	Amount of Debentures Authorized	Rate of Interest	Due Date of Debentures.
5036	27th Jan., 1908	\$2,750,000	4 %	1st July, 1948
5918	22nd Jan., 1912	2,200,000	4 %	1st July, 1948
6674	13th Oct., 1913	700,000	4½ %	1st July, 1953
7176	26th Oct., 1914	1,000,000	4½ %	1st Jan., 1955

The Sections of the Act creating the Commission and defining the duties and powers of the Commissioners are as follows:—

16. The Municipal Electric Light, Heat and Power Works (including any purchased) shall be managed by a Board of Commissioners to be called "The Toronto Electric Commissioners," which shall consist of three members. The Mayor of the City shall be ex-officio a member of the Board. One member shall be appointed by the Municipal Council of the City on the nomination of the Board of Control, and no appointment shall be made by such Council in the absence of such nomination, except on the affirmative vote of at least two thirds of the members of the Council present and voting, and the third shall be appointed by the Hydro-Electric Power Commission of Ontario, and such members so appointed shall hold office for two years and until their successors are appointed.
17. The Board shall perform all the duties and have all the powers of Commissioners under the Municipal Light and Heat Act, the provisions of which shall apply, except that the Board shall have power to apply so much of the moneys paid over to the Treasurer of the Municipality under the provisions of that Act, as well as the annual revenues, as the Board may deem necessary in improving or extending the works under its management.
18. Each member of the Commission, except the Mayor, shall be entitled to such annual salary, not exceeding \$4,000 as the Board may determine.

The Commissioners at present are:—

P. W. ELLIS, Chairman  
HIS WORSHIP MAYOR CHURCH  
R. G. BLACK

Toronto, 31st July, 1916.



## Commissioners' Report.

*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto,*

TORONTO.

GENTLEMEN,

Your Commissioners beg to submit their Fifth Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements of the Toronto Hydro-Electric System for the year ended 31st December 1915. Under the authority of a resolution of the Board of Control the annexed Balance Sheet and the books and accounts of the System from the 1st. July 1915 have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended hereto.

**Financial Position as at**      The operations for the year 1915 have again  
**31st December, 1915:**      yielded satisfactory results.

The gross income amounted to the sum of.....	\$1,620,187.60
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of.....	979,208.75
Leaving a surplus of income on operating account for 1915 of.....	\$640,978.85
Charges and allowance not strictly attributable to the operating expenses for the year 1915, and reserves for contingencies and grants for patriotic purposes, absorbed the sum of.....	13,773.28
Leaving surplus income available for fixed charges of.....	\$627,205.57
Interest, Depreciation and Sinking Funds for the year absorbed the sum of.....	624,067.78
Leaving a surplus of net income of.....	<u>\$3,137.79</u>

The whole of the cost of getting and promoting new business has again been met out of the year's income.

When the charges for Interest, Depreciation and Sinking Funds for the year amounting to \$624,067.78 are deducted from the surplus income

on the year's operating account of \$640,978.85, a nett surplus on the year's operations of \$16,911.07 appears. Of this surplus, the sum of \$13,773.28 was absorbed by charges and allowances as above stated, not strictly attributable to the operating account for the year, thereby leaving a final net surplus after providing for all charges of every kind of \$3,137.79.

Nothing has been charged to Capital expenditure that should have been charged to Revenue. The enterprise has therefore again fully paid its way and earned a small surplus after making full provision for contingencies, and after dealing in the most conservative manner with the accounts.

The net income available for fixed charges represents approximately  $9\frac{1}{2}\%$  upon the average amount of capital invested in the fixed plant during the year.

The interest due and accrued in favour of the Corporation of the City of Toronto, while fully earned as aforesaid, has not yet been paid owing to the fact that no provision has yet been made by the City for the necessary working capital of the system as distinct from construction capital, and to the fact that the net proceeds of the debenture issues, so far received from the City, do not cover the net expenditure on construction account.

Of the sinking fund instalments which accrued during the purely construction period ended 31st December 1911, a balance amounting to the sum of \$93,733.96 is still carried forward as a charge upon future surplus earnings. But for the reduction in rates this amount would have been covered ere this.

The net cash expenditure on construction account amounted at the end of the year to the sum of \$5,897,627.82; while the net cash proceeds of the debenture issues received from the City to the same date amounted to the sum of \$5,287,589.44. The sum required from the City therefore at the end of the year to meet the construction expenditure to that date amounted to \$610,038.38. This amount will be received from the City in due course out of the proceeds of the balance of \$350,000 of debentures authorized by City By-law No. 7176 and of other debenture issues authorized by later City By-laws.

Pending provision by the City for the necessary working capital of the System especially referred to in your Commissioners' Third Annual Report, they have been compelled to employ the depreciation reserve funds for working capital purposes. These funds were established for the purpose of replacing the existing plant and equipment as they wear out, and as the need for replacement arises, they will be required for that purpose.

**Reduction of Rates:** It is important to remember that your Commissioners are not empowered to settle the rates payable by consumers for any class of service. The rates chargeable for each class of service are, by Section 38 of the Power Commission Act, subject "to the approval and control of" The Hydro-Electric Power Commission of Ontario. A new and reduced scale of rates was adopted at the beginning of the present year, under the advice of that Commission. The following table shows the average reductions that have been effected by the new tariff:

Class of Service	New Rates Average per K. W. H. (Part of 1916)	Old Rates Average per K. W. H. (Same period 1915)	Average Reductions
Residence lighting .....	2.86 cents	3.73 cents	23.3%
Commercial lighting .....	2.26 cents	2.70 cents	16.3%
Commercial Power.....	.97 cents	1.35 cents	28.2%

It may be of interest to recall that the original experimental tariff of rates established at the inception of the enterprise represented an average reduction of from forty to fifty per cent upon the then current scale of prices paid by Power and Light consumers in this City. These rates proved self-sustaining and they were continued in force until January 1915, when substantial reductions were made. The growth of the System during the year 1915 has again permitted, as already stated, a further reduction to be made from the beginning of the present year.

**Progress During 1915:** Satisfactory progress was made during the year 1915. Notwithstanding the reduction in rates ranging on the average in the different classes of service from thirteen to twenty-eight per cent, the gross income shows an increase over that of

1914 of 7.9%. The increase in the commercial income over that of 1914 was 12.3%. The commercial income for the year amounted to nearly 66.4% of the total against 63.9% in 1914, and 59.05% in 1913. The support of the general public is therefore steadily and satisfactorily increasing, and the business arising from supplying its requirements represents each year an increasing proportion of the total output. This is obviously a markedly satisfactory feature of the operations, indicating as it does, an increasing confidence on the part of the public at large. The municipal income represents the balance of the year's business, or about one-third of the whole. The following table may prove of interest as exhibiting other aspects of the progress of the year:—

Particulars	At 31st. December 1914	At 31st. December 1915	Increase
Customers .....	31,500	38,834	7,334=23.0%
Meters in use.....	33,976	39,284	5,308=15.6%
Street Lanterns in use.....	40,596	43,411	2,815= 6.9%
K.W.H. Sold for years ended..	*82,927,015	*109,501,981	*26,574,966=32.1%
Connected load H.P.....	90,162	111,413	21,251=23.6%
Peak Load H.P. Dec. each year	28,753	40,180	11,427=39.8%

\*Excludes System Consumption.—1,665,280 Kw. hrs. in 1914, and 1,533,801 Kw. hrs. in 1915,

**Enlargement of System:** The expenditure upon the additions to the physical system and equipment that were made during the past year amounted to the sum of \$587,912.62. These additions covered necessary extensions in progress and contemplated at the end of 1914, including the construction of the East End Substation at the junction of Carlaw Avenue and Gerrard Street, a smaller Substation at Stanley Park, the By-passing of the Ring Mains, and a new street lighting system in Toronto Street and part of Richmond Street. In the new street lighting system so installed the latest gas filled type of lamp has been used, with excellent effects.

As stated in previous reports, the growth of the City and the steadily increasing demands of the public will compel further extensions from time to time. Any failure to enlarge the physical system and its equipment from year to year to meet the increasing demands of the citizens would involve a discrimination against those seeking additional service and indeed it would amount to an abandonment of the object which the System was founded to realize. Every care will be taken at all times, but

especially during the present time of War stress, to limit the extensions within the requirements of a sound and conservative policy. It is of course obvious that additional debt contracted by the City for the purpose of enlarging the physical system and its equipment is always offset by the acquisition of a corresponding revenue-producing asset. The interest on, and the sinking fund required to discharge at maturity such debt, is guaranteed by the earnings of the System, which is now firmly established on a sound and stable earning basis.

**Labour Conditions:** During the latter part of the year certain employees of the system, members of the International Brotherhood of Electrical Workers, went out on an unsuccessful strike in support of demands that your Commissioners felt were unreasonable and unjust. Although the work of maintaining an efficient and uninterrupted service under these conditions proved arduous, it was successfully accomplished. The policy followed by your Commissioners in all labour matters is dictated by a large-minded and generous consideration for the welfare of their employees. They believe that this disposition is now fully recognised by the employees, and they look forward with some confidence to harmonious relations characterised by mutual consideration and goodwill.

**Patriotic Expenditures:** Substantial outlays have again been necessitated during the past year by way of subscriptions to patriotic and other funds, and by way of allowances to employees on active service and the beneficiaries thereof. Your Commissioners have reason to believe that these expenditures meet with your full approval. The War has taken a heavy toll of human life and the employees of the System have taken an honourable part in the fight for freedom.

**Depreciation Funds:** Your Commissioners understand that the Finance Commissioner of the City of Toronto has advised that whenever in the future, Debentures require to be issued by the City for the purpose of purchasing physical plant or equipment, such Debentures shall be limited as to their term to the estimated wearing lifetime of the structures for the purchase or construction of which they are required; and that while market conditions make it profitable to do so, they shall be issued in serial form, that is providing for the payment yearly of stipulated parts of the whole. An impression seems to have been formed here and there in the public mind, that as a result



of this new policy, if it should be adopted, the Toronto Hydro-Electric System will no longer require to maintain depreciation or replacement funds for the purpose of renewing the existing plant as it wears out. As this impression is wholly erroneous, it may be well to add a word of explanation as to the need for maintaining depreciation funds as heretofore. Your Commissioners set aside out of earnings from year to year the following sums, viz;

- (1) The amount necessary to meet all interest on the Debentures issued for the purpose of the Hydro-Electric enterprise;
- (2) The amount necessary to constitute a sinking fund which, accumulating at a given rate of interest, shall be sufficient to pay off the Debentures at maturity; and
- (3) The amount necessary to accumulate by the end of the wearing lifetime of the plant, a fund sufficient to replace the same. without making any further demand upon the City for new issues of Debentures for replacement purposes.

The effect of this policy is, in short, to meet out of earnings the accruing annual interest charges, the accruing annual sinking fund requirements, and to entirely replace all plant at the expiration of its wearing lifetime without any further call upon the City. These are standing obligations which cannot be avoided. The first two are lawful obligations which can be enforced upon your Commissioners. The last is an obligation of sound policy and sound finance, designed inter-alia to prevent the accumulation of City indebtedness for Hydro-Electric construction to such a level as might in time affect injuriously the credit of the City. It is obvious that if the policy of establishing and maintaining depreciation funds of the character described, were abandoned, your Commissioners would require to make application to the City from time to time, not merely for the issue of Debentures, to cover the extension of the plant, but also for the issue of Debentures to cover the replacement of existing and future plant as such wears out. Hence the new policy with regard to future issues of Debentures which the City has been advised by its Finance Commissioner to adopt, has no bearing upon the duty of your Commissioners to maintain depreciation funds on such a scale as will prevent, in the interest of the City's credit, a perpetually increasing debt for Hydro-Electric purposes.



**Conclusion:** The Toronto Hydro-Electric System has undoubtedly conferred great benefits and advantages upon the power and light consumers of the City. The Officers of the System have computed that the reduced rates for residential and commercial light and for commercial power that have been instituted and maintained during the four years ended 31st December last, have resulted in a nett saving to its customers in these services of approximately \$3,500,000. As a consequence of its competition there has also been an all round reduction of rates for similar services rendered within the City, by its commercial competitors. Assuming therefore that a saving of like amount has been realised by the customers of its commercial competitors during the same period of time, it would seem that the residential and commercial power and light consumers of the City have saved not less than \$7,000,000 during the past four years through the advent of the Toronto Hydro-Electric System. At the same time the quality of the service rendered by all has, under the stimulus of competition, greatly improved when compared with the pre-existing standard. These savings represent a bona fide addition to the accumulated wealth of the City. Their investment in reproductive enterprises in the Dominion means a great strengthening of the competing power and a substantial addition to the productive capacity and to the annual income of the country. The savings are also continuing and accumulating in their nature. Each succeeding year's expenditure by the public on such power and light services, carries with it a saving to the extent of the difference between the cost thereof under the old and the new standards. Without attempting therefore to measure the capitalised value of these continuing annual savings, and without attempting to measure the great value to the country at large of the investment of these accumulating sums in reproductive enterprises, your Commissioners venture to think that they may fairly claim to have conferred benefits of no mean order upon the community and upon the country as a result of the enterprise they have built up. Briefly, they think they may fairly claim:—

- (a) To have established and maintained a higher grade of service than any previously enjoyed at a lower initial scale of rates than was previously charged for an inferior grade of service;

- (b) That by the adoption of the "cost price" policy they have insured to the public a descending scale of rates—within limits—under which electric light and power is brought within reach of the poorest classes of the community, whose standard of life and comfort is appreciably raised thereby;
- (c) That by the establishment and maintenance of a generous wage scale and a generous holiday allowance for their employees they have greatly raised and improved the labour and social conditions of their workmen;
- (d) That they have demonstrated that Municipal ownership can, under wise guidance, notwithstanding prejudice to the contrary, be successfully applied to great public utilities, and in consequence thereof they have justified and stimulated public confidence therein;
- (e) That not only have they accomplished these results without infringing upon the resources or impairing the credit of the Municipality and without laying the burden of one single dollar of taxation upon the ratepayers at large, but in addition the cost of the Municipal services has been greatly reduced having regard to the quantum and quality thereof, and in consequence the tax payers' burdens in respect thereof have been appreciably lightened; and
- (f) That over and above the foregoing, the capital value to the community and the country of the accumulating annual savings effected by the reduced rates, represents a very substantial sum which, invested in reproductive enterprises, multiplies employment, increases the demand for both home and foreign products, and adds to the wealth of the country.

In conclusion they have only to add that their thanks are again due to a loyal and faithful staff and to all the appreciative agencies that have sustained them during a trying year.

Respectfully submitted,

P. W. ELLIS,  
*Chairman.*  
THOS. CHURCH,  
*Mayor.*  
R. G. BLACK,  
*Commissioner.*

# CERTIFICATE OF AUDITORS

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Toronto, May 30th, 1916.

*To the Commissioners of  
The Toronto Hydro-Electric System:—*

We have audited the books and accounts of the Toronto Hydro-Electric System, for the six months ended December 31st, 1915, and certify that the attached Balance Sheet is properly drawn up, and, in our opinion, shows the true financial condition of the System as at December 31st, 1915.

We have examined the Accounts Receivable and are satisfied that provision has been made for all doubtful accounts. We have verified the cash balances.

(Sgd.)	WALTER STERLING.	} Auditors.
(Sgd.)	W. A. TOLLEY, F.S.A.A. (Eng.)	
	Chartered Accountant.	

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHOWING NET INCOME

### CHARGES

To Cost of Electric Current .....	\$430,830.00	
To Expenses of Operation and Management including Repairs, Maintenance and Accrued Charges, Provision for Proportion of Special Depreciation of Leasehold Buildings and Improvements (\$7,852.14) and Reserve for doubtful Accounts Receivable.....	548,378.75	
		\$979,208.75
To Net Income from operations of year carried forward .....		640,978.85
		<u>\$1,620,187.60</u>
To Miscellaneous Charges not attributable to Operating Expenses for this year and Reserves for Contingencies in respect of unsettled matters .....	\$13,156.96	
Less Amount over-reserved for Contingent Rentals in 1914 .....	10,323.69	
	2,833.27	
To Proportion of payments to Employees enlisted for Active Service and other Patriotic Grants .....	10,940.01	
		13,773.28
To Net Income available for fixed charges carried forward to Section II.....		627,205.57
		<u>\$640,978.85</u>

## SECTION II. SHOWING DIS-

To Interest .....	\$271,389.63	
To Depreciation .....	249,611.13	
To Sinking Funds:—		
Under City By-Law No. 5036....	\$36,471.00	
Under City By-Law No. 5918....	34,254.00	
Under City By-Law No. 6674....	9,283.00	
Under City By-Law No. 7176....	13,262.00	
	<u>\$93,270.00</u>	
Under Agreement with Provincial Hydro Power Commission re Supply outside City.....	954.21	
	<u>\$94,224.21</u>	
To Interest on past due Sinking Fund Instalments .....	8,842.81	
	103,067.02	
		\$624,067.78
To Surplus carried to Balance Sheet.....		3,137.79
		<u>\$627,205.57</u>

# Electric System for Year ended 31st December, 1915

## FROM OPERATIONS FOR YEAR

<u>INCOME</u>	
By Sale of Current for:	
Lighting .....	\$623,715.10
Power .....	544,343.50
Street Lighting .....	350,085.97
Exhibition .....	17,194.02
Bulk Supply and other Municipalities.....	34,686.58
	<u>\$1,570,025.17</u>
By Income from Sundry other sources.....	50,162.43
	<u>\$1,620,187.60</u>
By Net Income from operations of year brought forward .....	\$640,978.85
	<u>\$640,978.85</u>

## -POSITION OF NET INCOME

By Net Income available for fixed charges brought forward from Section I.....	\$627,205.57
	<u>\$627,205.57</u>

# Balance Sheet as at 31st December, 1915, of

## ASSETS

### FIXED ASSETS

Lands, Buildings, Transmission System, Sub-Station Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department and Miscellaneous Equipment, and Exhibition Construction and Equipment. ....	\$5,823,969.83
Leasehold Premises and Improvements.....	73,657.99
	<u>\$5,897,627.82</u>
Debenture Discount and Expenses.....	1,012,410.56
	<u>\$6,910,038.38</u>

NOTE—:(Provision for writing off Debenture Discount and Expenses at the maturity of the respective Debenture issues is secured by the annual charges against the earnings in respect of Sinking Fund.)

### CURRENT ASSETS

Stores on Hand and Apparatus on Loan less Reserve for Contingencies .....	\$437,995.06
Accounts Receivable (including Orders in Progress) less Reserve for Estimated Losses \$40,203.12 .....	367,501.41
Cash in Bank and on Hand.....	84,220.22
	<u>889,716.69</u>
Deferred Charges to future Operations.....	17,055.43

\$7,816,810.50



# the City of Toronto Hydro-Electric System.

## LIABILITIES

### CAPITAL ACCOUNT

#### Corporation of City of Toronto:—

By-Law No. 5036, Cash Advanced.....	\$2,240,124.55	
Debenture Discount and Expenses.....	509,875.45	
		\$2,750,000.00
By-Law No. 5918, Cash Advanced.....	1,816,774.89	
Debenture Discount and Expenses.....	383,225.11	
		2,200,000.00
By-Law No. 6674, Cash Advanced.....	641,335.00	
Debenture Discount and Expenses.....	58,665.00	
		700,000.00
By-Law No. 7176, Cash Advanced.....	589,355.00	
Debenture Discount and Expenses.....	60,645.00	
		650,000.00
Total Bonded Debt.....		6,300,000.00
Less Funds in City Treasurer's hands for re- demption .....		480,949.94
Net Bonded Debt.....		5,819,050.06

### CURRENT LIABILITIES

Accounts Payable and Accrued Charges.....	\$141,688.70	
City of Toronto for Interest due and accrued to date .....	758,039.92	
		899,728.62

### RESERVES

For Depreciation of General Assets .....	\$666,906.23	
For Depreciation of Leasehold Property.....	32,664.39	
For Contingencies .....	8,000.00	
For Sinking Fund.....	\$481,057.37	
Less Sinking Fund Suspense Account as at 1st January, 1915 .....	\$93,733.96	
	387,323.41	
		1,094,894.03
Surplus as per Revenue Account.....		3,137.79
		\$7,816,810.50

226-8 Yonge Street

Toronto

June, 1916

## General Manager's Annual Report

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*The Toronto Electric Commissioners.*

GENTLEMEN :—

Herewith I beg to submit my report on certain features connected with the year's operations to 31st December, 1915.

**Growth of Enterprise.** The year has been one of substantial progress in spite of the conditions arising out of the war. The growth is shown in the diagrams appended hereto. The Total K-W. hours sold for the year amounted to over 109½ million, being an increase of over 30%.

The Total Revenue from the sale of current has not of course increased correspondingly, due to the substantial rate reduction made as from January, 1915. In spite of this reduction, however, the Total Revenue has increased to the extent of about \$100,000.

The Total Revenue received from the Civic Services was actually about \$3,000 less than for the previous year (due also to the rate reduction) although the K-W. hours supplied for such services increased about 11%.

The average price obtained from private customers, excluding current for re-sale, is 2.01c. per K-W. hour, whereas the corresponding figure for the Civic Services is 1.04c. per K-W. hour. In other words, the revenue obtained per K-W. hour from the Civic Services is only about half of that obtained from the private customers.

The Average Price obtained for the total K-W. hours sold for the year shows a reduction of over 17%.

The Net Gain in the number of customers for the year is over 7,100, and in the customers' connected load is over 21,000 H.P.



CARLAW SUB-STATION



MAIN FLOOR EAST END SUB-STATION *before installation of equipment*



INTERIOR, STERLING ROAD SUB-STATION



STERLING ROAD SUBSTATION



INTERIOR OF ONE SECTION, MARKET SUB-STATION

The Peak Load for the year was over 40,000 H.P.,—an increase of more than 38%.

The Capital Expenditure during the year was less than in 1914, every effort being made to reduce the same to the lowest possible limit consistent with obtaining such new business as was available.

**Cost.** Power Purchased from the Hydro-Electric Power Commission of Ontario during the year amounted to nearly \$431,000, an increase over 1914 of over \$105,000, or over 30%.

The total sum expended on Operating and Maintenance for the year, excluding Power Purchased, shows a decrease over 1914 in spite of the greatly increased sales. In other words the System has sold over 26½ million K-W. hours more than in 1914 (representing over 30% increase in output), yet the cost of operating and maintenance totals less than in 1914. Looked at from another point of view, the unit cost per K-W. hour of the total sales has been decreased by approximately 24%. This economy is in spite of the increased market price of almost every article purchased by the System.

The result of this is a Net Surplus of over \$16,000 available after defraying the total cost of operation and power purchased, as well as all interest and sinking fund charges, and setting aside practically a quarter of a million dollars for depreciation.

Taking another view, after paying the total cost of operation and power purchased and meeting every statutory obligation including sinking fund and interest, there was available from the year's operation the sum of over \$266,000 for depreciation and special purposes.

**New Work.** The only new works of special interest put in hand or completed during the year are the construction of the East End Sub-station at the junction of Carlaw Avenue and Gerrard Street, and a smaller Sub-station at Stanley Park, as well as the by-passing of the ring mains. These two Sub-stations are illustrated on page 21.

It will be noted that the East End Station has a departure from the previous practice, inasmuch as a branch store will be opened for the convenience of customers in the district, where they can pay their accounts and also see or obtain the latest electrical appliances which





LOCAL IMPROVEMENT PLAN — UNDERGROUND



IMPROVED DOWN TOWN



STANDARD OVERHEAD



FIVE LIGHT CLUSTER

have now become an essential part of the equipment in all modern residences. It is proposed to eventually extend this system if successful into other districts as and when practicable.

The by-passing of the ring mains consists of over four miles run of underground duct work bisecting the existing ring mains from which latter the whole supply in the City radiates. When this work is completed the effect will be to split the system into two separate rings, each with duplicate cables connected so as to safe-guard the service, and as far as possible secure reliability.

**Street Lighting.** The new system in Toronto Street and part of Richmond Street has been completed. Here the latest gas-filled type of lamp has been used, and the effect is universally admitted to be excellent. It will be remembered that this type of lighting was offered to the City for the down town area at the beginning of 1915, without any cost to the City. The alternative viz: a reduction of the rate with the old type of lighting was however accepted by the Council.

A good deal has been done free of cost to the City in re-arranging the general street lighting service so that the number of lamps affected by the failure of a transformer will be reduced to a minimum. When this is completed it will mean that a transformer failure will affect alternate lamps only.

**General.** The work of the system during a portion of last year was seriously hampered by the omission of the City authorities to deal with the application for a by-law covering additional capital expenditure, made on July 7th, 1915. Due to lack of authorization adequate steps could not be taken in advance, with the result that not only the one year's results were affected but the probability is that the effect will be more marked in future years.

Apart from any other features of the case it will be realized how impossible is the position from the standpoint of accurate estimating. Copper—which bulks largely in the cost of electrical apparatus—on the date of the application was quoted at 19½c per lb., whereas on the date



when the City Council authorized the by-law covering the application the price had advanced to 30½c. That is to say that one of the largest items of cost had increased over 56% between the date that authority was applied for, and the date it was given—a matter of ten months.

It is a great pleasure on the other hand to record the advantage which will accrue to the Hydro due to the system of financing initiated by the Commissioner of Finance for the City. The beneficial effect should be very material as time goes on, apart from simplifying the work of the system.

**Men with**        The Honour Roll has been brought up to 1st June, 1916,  
**the Colours.**    and appears on pages 27 to 30.

The following figures are interesting as showing the number of enlistments and the period of the same:

23 enlisted with the 1st Contingent at the outbreak of War, August 1914.

9 enlisted between September and December, 1914.

55 enlisted during the year 1915.

53 enlisted between January 1st, 1916, and June 1st, 1916.

The names given in the foregoing are only those which have been verified up to date. In addition there are a number of others yet to be certified.

The casualties officially reported to date are as follows:—

3 Killed in Action.

2 Missing.

2 Wounded and Invalided home. (1 Incapacitated).

4 Prisoners of War.

In conclusion I record with pleasure the valuable services rendered by the staff in connection with the undertaking, which services have been cheerfully given always, though at times under circumstances of some difficulty. To these is largely due the measure of success obtained in the year's working.

Our thanks are also due to those officials of the City who have so kindly co-operated in helping the Hydro System, and those connected therewith.

I am, Gentlemen,

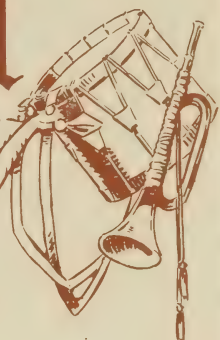
Your obedient servant,

H. H. COUZENS,

*General Manager.*



# Honour Roll



## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### REPORTED KILLED IN ACTION

NAME	REGIMENT OR BATTALION	RANK
H. J. COSH	Princess Patricia's	Private
H. BAND	15th Battalion	Sergeant
J. DEWAR	15th Battalion	Private
J. DUGUID	Gordon Highlanders (British Army Reservist)	Private

### REPORTED MISSING

R. FLAXMAN	15th Battalion	Private
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### DISCHARGED OWING TO WOUNDS

S. PETERS	3rd Battalion	Corporal
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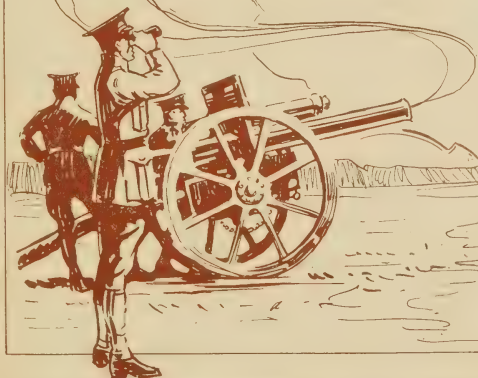
### REPORTED PRISONERS OF WAR

J. CHADWICK	15th Battalion	L.-Corporal
E. HYDE	3rd Battalion	Private
E. RODGERS	15th Battalion	Sergeant
F. HOUSE	15th Battalion	L.-Corporal

(Previously reported killed)

### ON ACTIVE SERVICE

A. BELL	A. M. C. Field Ambulance	Private
W. A. REID	1st Divisional Cyclists	Private
A. HART	15th Battalion	Private
C. PRATER	Army Medical Corps	Private
F. M. McKEEGAN	Army Medical Corps	Private
P. CHAPMAN	75th Battalion	Private
A. K. COULTHARD	3rd Battalion	L.-Corporal
A. W. COULTER	1st Div. Machine Gun Co.	Lieut.
R. J. CLAPTON	3rd Battalion	Private
J. F. M. NIXON	3rd Battalion	L.-Sergeant
R. JONES	3rd Battalion	Private
A. J. CHURCH	1st Div. Sig. Co.	Private
T. JOHNSTONE	Army Service Co.	Private
A. HUGHES	4th Brigade	Private
J. E. WOOLLEY	19th Battalion	Private
J. A. FOLLANSBEE	19th Battalion	Private
F. H. CANTLON	Casualty Depot, England	Ser.-Instr'r
H. CUNNINGHAM	Army Med. Co.	Private





ON ACTIVE SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
J. C. MANSON -	Engineers, Wireless Signals	Lieut.
A. G. KEAN -	Army Service Corps	Baker
E. MEESON -	Army Service Corps	Corporal
R. J. WHITEMAN	3rd Battalion	Private
R. J. McTAVISH	19th Divisional Ammunition	Lieut.
A. J. McFADDEN	1st Battalion	Private
J. GILSON -	20th Battalion	Private
W. GRAHAM -	19th Battalion	Private
W. B. COWAN -	2nd Div. Cyclists	Private
A. HEARD -	20th Battalion	Private
J. A. TILSON -	Engineers, Rly. Constr	Sapper
S. H. MUNRO	Artillery, 23rd Battery	Driver
G. W. HARRIS -	36th Battalion	Private
T.W. KIRKPATRICK	Artillery, 26th Battery	Gunner
H. JEX -	Army Service Corps	Private
R. J. PEARCE -	4th Battalion, 1st Brigade	Private
W. THORNTON	75th Battalion	Private
* W. WORDEN	39th Battalion	Private
T. SIMPSON -	92nd Battalion	Corporal
C. H. W. NOBLE	Army Service Corps	Private
A. J. WRIGHT	74th Battalion	Sergeant
J. CURRIE -	75th Battalion	Private
W. A. STEEL -	2nd Military Div. Head- quarters Signal Staff	Ser.-Instr'tor
C. MILLER	127th Battalion	Private
A. FERGUSON	92nd Battalion	Private
E. WILSON	92nd Battalion	Private
J. JACKSON	R.C.H.A. 3rd Reserve Battery	Bombardier
R. BAKER	58th Battalion	Private
D. LAIDLAW	92nd Battalion	Private
R. MEESON	92nd Battalion	Private
T. H. STEWART	92nd Battalion	Private
R. SANDFORD	92nd Battalion	Sergt. Major
W. H. RUSSELL	3rd Div. Cyclists	Private
W. ROBERTSON	92nd Battalion	Private
J. E. WITHERS	C.F.A. 2nd Reserve Battery	Sergeant
W. G. CAMBRIDGE	92nd Battalion	Private
A. H. CARSWELL	134th Battalion	Sergt. Major
W. GIBSON	83rd Battalion	Sergeant

\* Later reported killed in action.







NAME	REGIMENT OR BATTALION	RANK
C. A. OLIES	- 92nd Battalion -	- Private
G. DENNISTON	- C. F. A. 45th Battery -	- Private
M. WHITE	- 58th Battalion -	- Private
G. FAIRWEATHER	- 92nd Battalion -	- Private
H. A. LAWSON	- C.F.A., 1st Brigade, 4th Battery	- Signaller
F. C. BARKER	- C. F. A., 9th Brigade -	- Sergt. Major
A. A. THORNE	- P.P.C.L.I. 11th Res. Signal Base	- Private
H. B. KIMBER	- Army Medical Corps -	- Corporal
A. G. EVANS	- 75th Battalion -	- Private
H. E. LOVE	- 95th Battalion -	- Co.Q.M. Sgt
G. D. DUDLEY	- 35th Battalion -	- Private
H. R. BRUCE	- 166th Battalion -	- Sergeant
A. GREEN	- Army Service Corps -	- Driver
L. J. MERRETT	- 123rd Battalion -	- Private
T. LEE	- 95th Battalion -	- Private
L. A. DICKSON	- Army Service Corps -	- Private
P. ACKROYD	- R.C.H.A. "C" Battery -	- Sergeant
W. H. O'BRIEN	- 123rd Battalion -	- Sergeant
H. E. EVANS	- C. F. A. 53rd Battery -	- Coporal
W. G. BREEN	- 126th Battalion -	- Private
A. CHRISTIE	- 124th Battalion -	- Private
S. J. SMITH	- 124th Battalion -	- Private
J. B. WILSON	- C. F. A. 34th Battery -	- Gunner
F. W. FINCH	- 124th Battalion -	- Private
W. AUSMAN	- 134th Battalion -	- Private
A. J. LAMBERT	C.F.A. 34th Battery	Gunner
R. ROBERTSON	134th Battalion -	- Private
J. E. RAMSAY	- 166th Battalion -	- Sergeant
J. COWAN	- 134th Battalion -	- Private
J. M. KERR	- 134th Battalion -	- Private
J. WALKER	- 134th Battalion -	- Private
R. C. COULTER	126th Battalion -	- Private
W. J. MOTTERSHEAD	169th Battalion -	- Sergeant
W. E. GOURD	169th Battalion -	- Private
W. A. RUMSBY	166th Battalion -	- Private
D. B. CLARK	- Engineers -	- Sapper





## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### ON ACTIVE SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
E. C. KIRKWOOD	Army Service Corps	Private
A. SCREATON	127th Battalion	Private
G. LEE	198th Battalion	Private (Bugler)
W. C. WARE	169th Battalion	Private
J. SMITH	Engineers B. I. Co.	L.-Corporal
W. N. TAYLOR	Army Service Corps	Private
W. F. ROSE	166th Battalion	Private
B. U. HARGREAVES	169th Battalion	Private
S. BECKETT	Engineers, 2nd Field Co.	Sapper
W. J. SIMMONS	44th Reg. Guard Co.	Private
H. C. STACEY	124th Battalion	Private
W. J. HAMILTON	166th Battalion	Private
F. W. JARVIS	127th Battalion	Private
J. FRAME	Army Service Corps	Private
V. O. BROOKS	180th Battalion	Private
W. H. MARSH	208th Battalion	Private
E. MORGAN	166th Battalion	Private
A. JAMIESON	169th Battalion	Private
T. CLERK	216th Battalion	Private
R. S. FOWLER	R. C. H. A. "C" Battery	Gunner
A. H. GRANT	R. C. H. A. "C" Battery	Gunner
R. H. GRANT	C. F. A. 53rd Battery	Gunner
P. MALPAS	R. E. P. I. Co.	Private
F. LOMAS	204th Battalion	Private
M. MACKAY	204th Battalion	Private
J. A. WHYTE	204th Battalion	Co. Q. M. S.
R. RICHARDS	170th Battalion	Private
D. E. IRWIN	92nd Battalion	Private
J. H. FORD	198th Battalion	Private
W. G. BAKER	220th Battalion	Private
J. WRAY	208th Battalion	Private
F. A. STARR	R. C. H. A. "C" Battery	Gunner
W. J. BELLINGHAM	220th Battalion	Private
R. LUND	4th Pioneer Battalion	Private
J. M. CARLISLE	Engineers 2nd Field Co.	Sapper
E. SECORD	Guides, Can. Ordinance	Guide
H. POOLE	201st Battalion	Private
W. P. CARLTON	220th Battalion	Private





# SALE OF ELECTRICAL ENERGY.



# SALE OF ELECTRICAL ENERGY.

TORONTO HYDRO-ELECTRIC SYSTEM

1915 REPORT.

## REVENUE FROM SALE OF CURRENT.

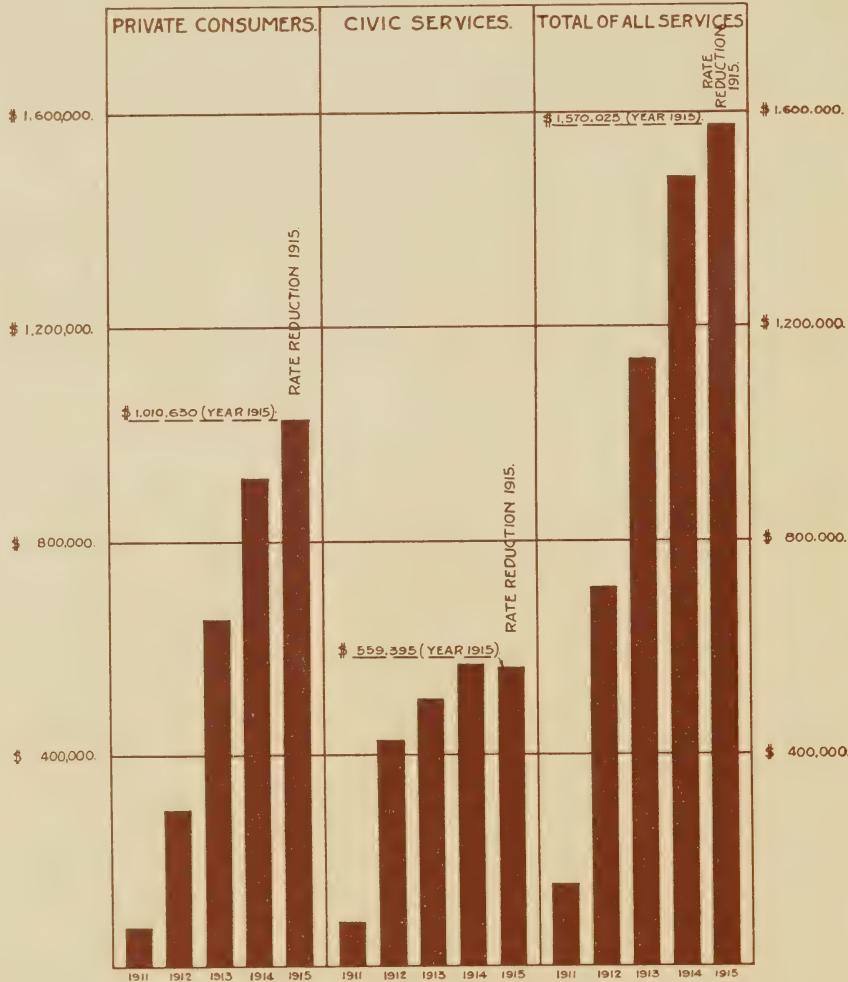
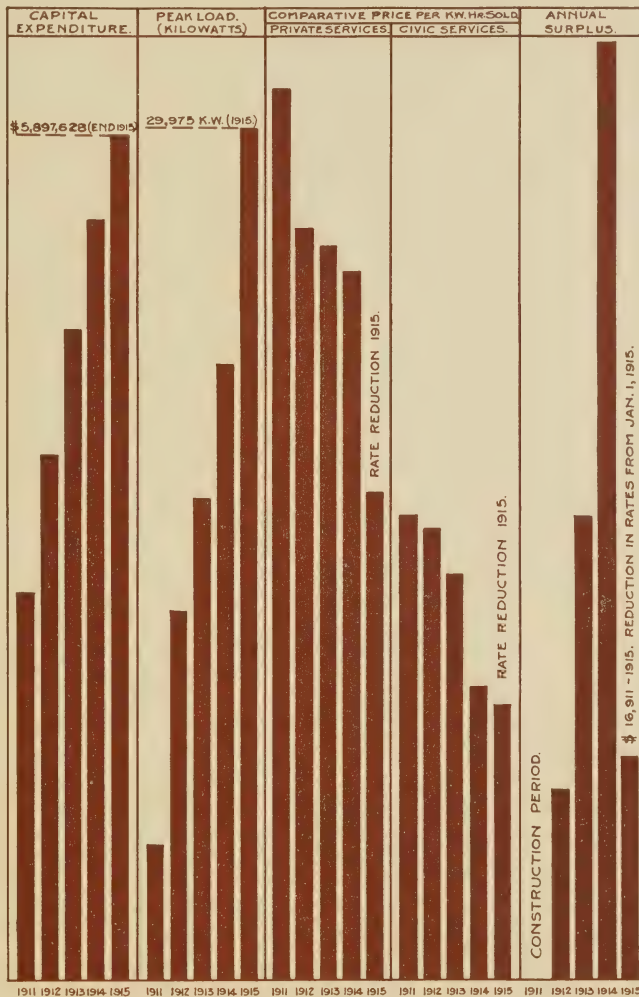


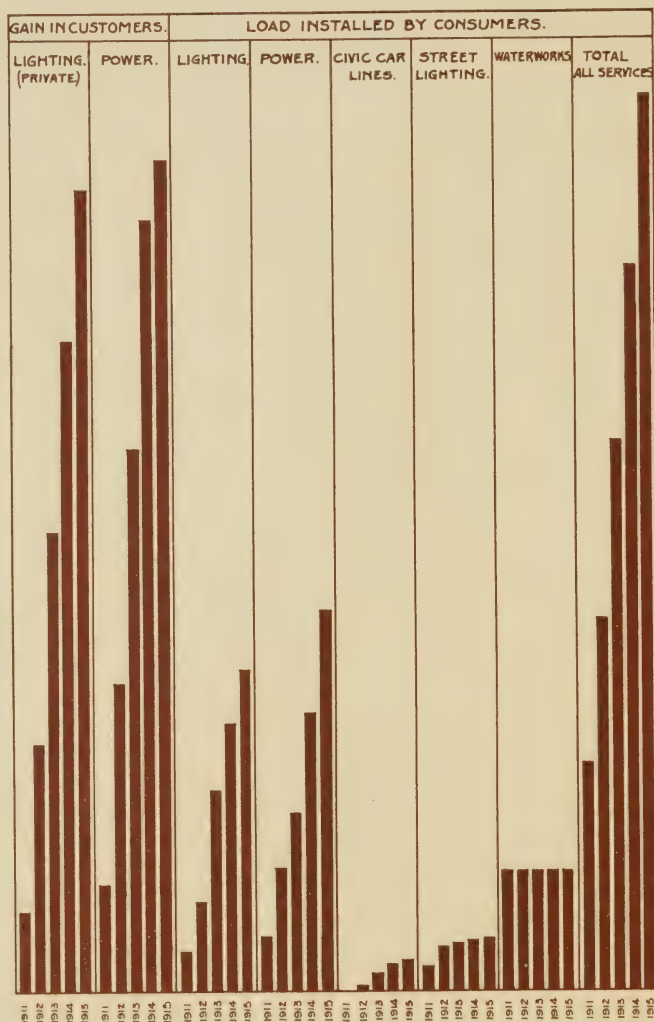
DIAGRAM SHOWING THE COMPARATIVE GROWTH OF  
THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES  
OF SERVICE YEAR BY YEAR.

TORONTO HYDRO-ELECTRIC SYSTEM.  
1915 REPORT.



CAPITAL EXPENDITURE, PEAK LOAD, REVENUE  
(PER K.W.Hr SOLD), AND SURPLUS, YEAR BY YEAR.

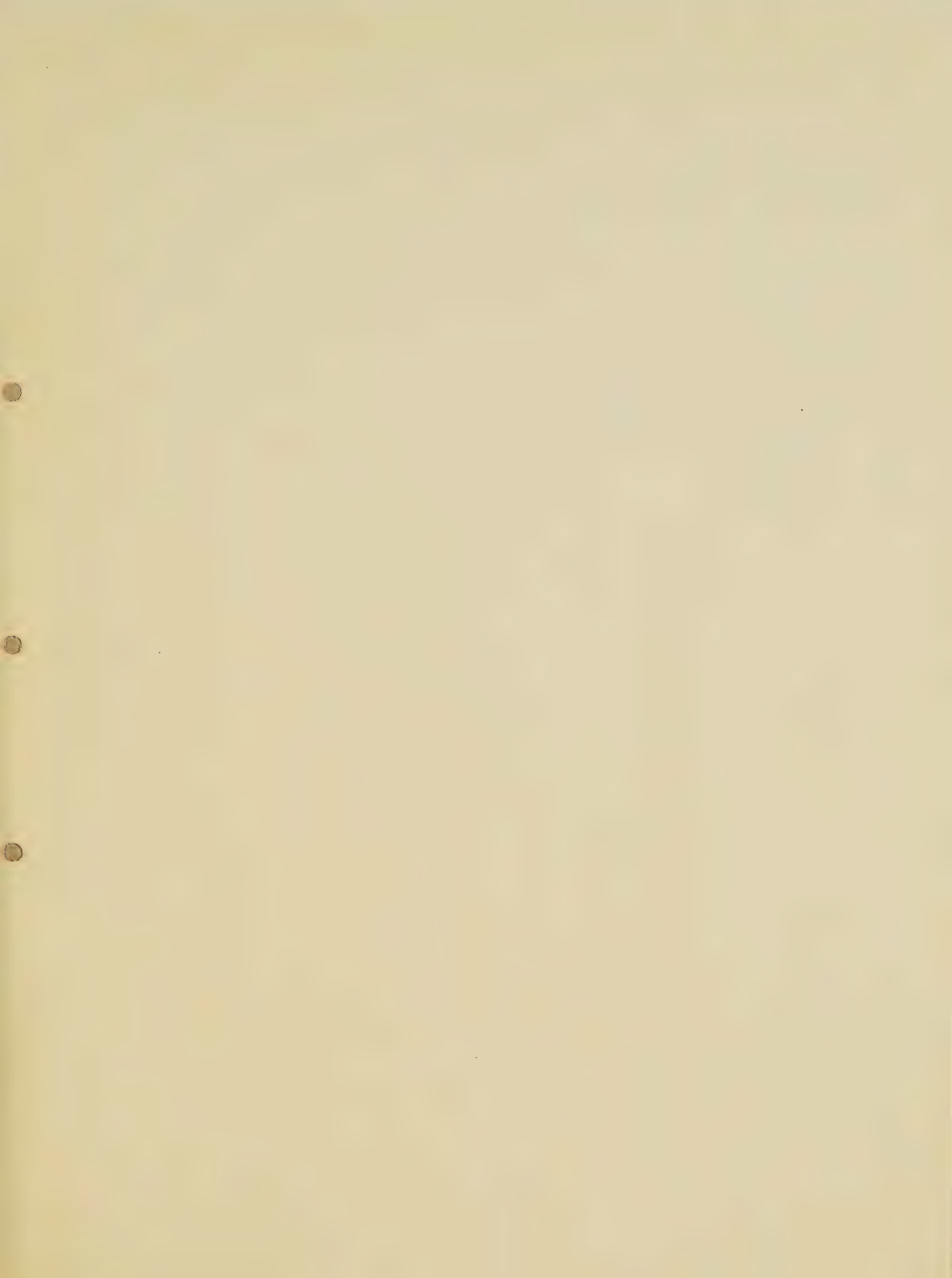
TORONTO HYDRO-ELECTRIC SYSTEM.  
1915 REPORT.



GROWTH OF BUSINESS YEAR BY YEAR.

SEPARATE SERVICES.

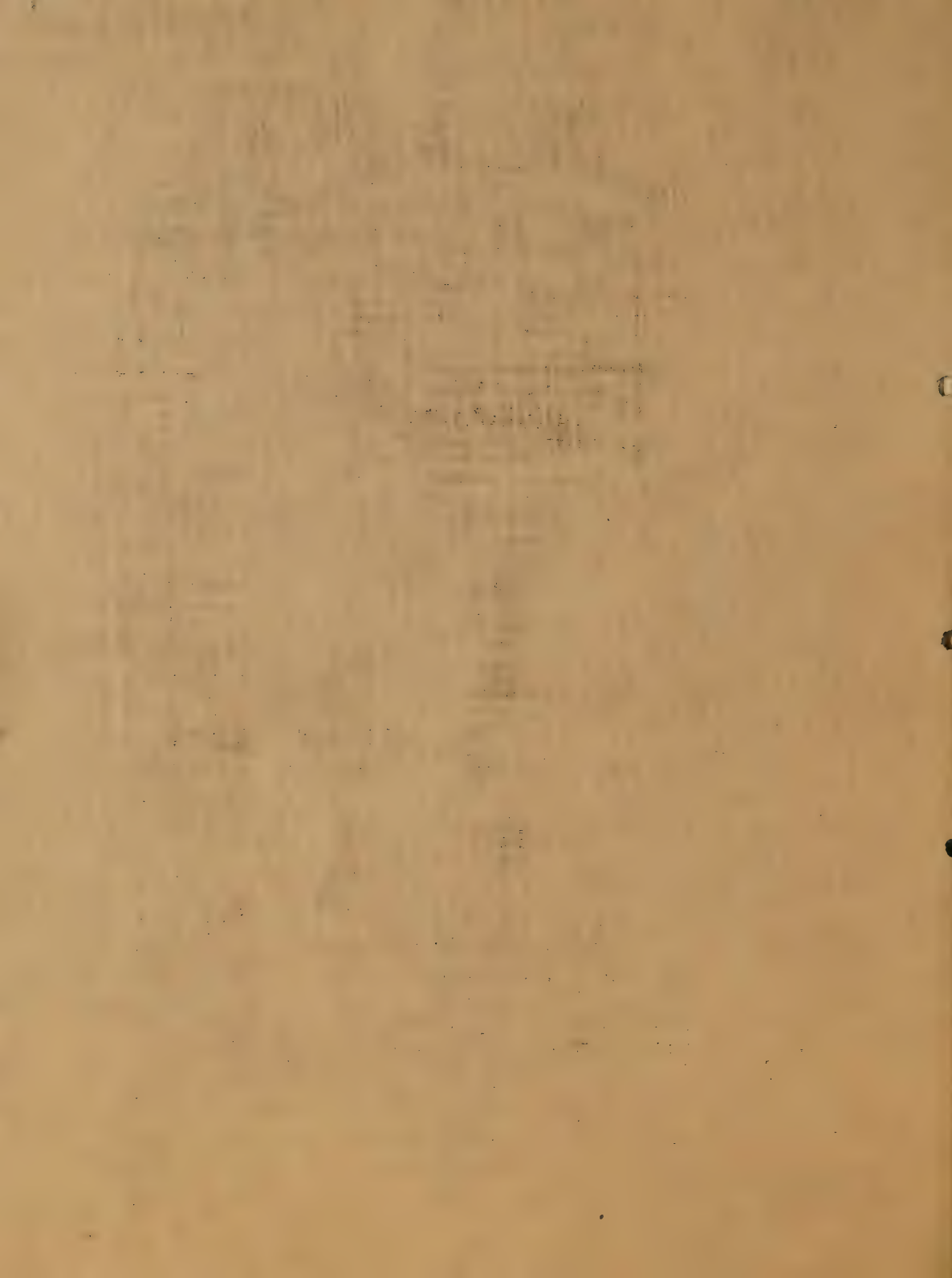
TORONTO HYDRO-ELECTRIC SYSTEM.  
1915 REPORT.











Doc. Gov

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Pat. Sci

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*Toronto & Electric Commission*

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# *The* TORONTO HYDRO ELECTRIC SYSTEM



SIXTH  
ANNUAL REPORT  
1916

THE  
HISTORY OF THE  
MEXICANS



BY  
J. W. FULTON, ESQ.  
OF THE  
CITY OF NEW YORK



# THE TORONTO HYDRO-ELECTRIC SYSTEM

*With the compliments of  
The Commissioners*

THE SIXTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS



## Explanatory Memorandum

**B**Y-LAW No. 5036 was passed by the Corporation of the City of Toronto on the 27th January, 1908, authorizing the construction and purchase of the works, plant, machinery and appliances necessary for the distribution of electric power in the City of Toronto and the issue of \$2,750,000 of City of Toronto 4% sinking fund debentures payable on 1st July, 1948, to provide the funds necessary for the cost of the said works, etc. The electric power required was to be supplied from Niagara Falls by the Hydro-Electric Power Commission of Ontario.

On the 4th May, 1908, an agreement was entered into between the Corporation of the City of Toronto and other municipal corporations of the one part, and the Hydro-Electric Power Commission of Ontario of the other part, providing for the construction by the Hydro-Electric Power Commission of Ontario of a transmission line from Niagara Falls to the termini of the contracting municipal corporations and for the transmission over the said line until the 19th December, 1939, of specified quantities of electric power to the City of Toronto and to the said municipal corporations, on the terms and conditions recited therein. Subsequently additional municipalities joined in the enterprise. The rates charged the participating municipalities by the Hydro-Electric Power Commission of Ontario for electric power supplied under the said agreement include provision for the repayment of the capital cost of the transmission line within the period of thirty years.

The construction of the Distributing System of the City of Toronto was commenced by the Corporation of the City of Toronto as an ordinary branch of the municipal services, but subsequently the completion and the whole management thereof were, by Chapter 119 of the Ontario Statutes of 1911, vested in a Board of three Commissioners styled "The Toronto Electric Commissioners."

The work and progress of the Commission has been made public from year to year by means of its Annual Reports. The Sixth of the series is annexed hereto. The various By-Laws passed by the Corporation of the City of Toronto up to the end of the year 1916 to provide for the construction and extension of the enterprise are as follows :

No. of By-Law	Date of By-Law	Amount of Debentures authorized	Rate of Interest	Due Date of Debentures
5036	27th Jan., 1908	\$2,750,000.00	4%	1st July, 1948
5918	22nd Jan., 1912	2,200,000.00	4%	1st July, 1948
6674	13th Oct., 1913	700,000.00	4½%	1st July, 1953
7176	26th Oct., 1914	1,000,000.00	4½%	1st July, 1955
7584) 7642)	1st May, 1916	1,248,000.00	5%	1st July, 1944
7643	12th June, 1916	443,100.56	5%	1st July, 1949

The sections of the Act creating the Commission and defining the duties and powers of the Commissioners are as follows—

16. The Municipal Electric Light, Heat and Power Works (including any purchased) shall be managed by a Board of Commissioners to be called the Toronto Electric Commissioners, which shall consist of three members. The Mayor of the City shall be ex-officio a member of the Board. One member shall be appointed by the Municipal Council of the City on the nomination of the Board of Control, and no appointment shall be made by such a Council in the absence of such nomination, except on the affirmative vote of at least two-thirds of the members of the Council present and voting, and the third shall be appointed by the Hydro-Electric Power Commission of Ontario, and such members so appointed shall hold office for two years and until their successors are appointed.
17. The Board shall perform all the duties, and have all the powers, of Commissioners under the Municipal Light and Heat Act, the provisions of which shall apply, except that the Board shall have power to apply so much of the moneys paid over to the Treasurer of the Municipality under the provisions of that Act, as well as the annual revenues, as the Board may deem necessary in improving or extending the works under its management.
18. Each member of the Commission, except the Mayor, shall be entitled to such annual salary, not exceeding \$4,000, as the Board may determine.

The original Commissioners were P. W. Ellis, Esq., His Worship Mayor Geary, K.C., and H. L. Drayton, Esq., K.C. Subsequently Sir Henry Drayton retired, assuming the Chairmanship of the Railway Commission of the Dominion of Canada. Afterwards Mr. Geary assumed the position of Corporation Counsel to the Municipal Corporation of Toronto, which he held until the outbreak of the war when he patriotically volunteered for overseas service. His Worship Mayor Hocken succeeded Mr. Geary, while Mr. R. G. Black succeeded Sir Henry Drayton. His Worship Mayor Church succeeded on election to the place on the Commission vacated by ex-Mayor Hocken. The Commissioners at present are :—

P. W. ELLIS, *Chairman*

HIS WORSHIP MAYOR CHURCH

R. G. BLACK

Toronto, June 22nd, 1917.

## Commissioners' Report.

*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto,*

TORONTO.

GENTLEMEN,

Your Commissioners beg to submit their Sixth Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements of the Toronto Hydro-Electric System for year ended 31st December, 1916. The annexed Balance Sheet and the books and accounts of the System have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended hereto.

**Financial Position as at 31st December, 1916.** The operations for the year 1916 have resulted as follows:

The gross income amounted to the sum of .....	\$1,706,177.00
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of .....	1,072,134.16
Leaving a surplus of income on operating account for 1916 of .....	\$634,042.84
Interest, Depreciation and Sinking Funds for the year absorbed the sum of .....	615,646.03
Leaving a surplus of net income of .....	<u>\$18,396.81</u>

The whole of the cost of getting and promoting new business has again been met out of the year's income. Nothing has been charged to Capital Expenditure that should have been charged to revenue. The enterprise has therefore again fully paid its way and earned a small surplus after dealing in the most conservative manner with the accounts.

In accordance with the advice of the Hydro-Electric Power Commission of Ontario and with the full approval of the Commissioner of Finance of the City of Toronto, the Depreciation reserve has been revised and placed upon a uniform basis as from the inauguration of the enterprise, the Sinking Fund basis being used. In connection with the fixed charges, the explanation given last year of the policy of the Commissioners



may, because of its importance, be worth repeating, viz., your Commissioners set aside out of earnings from year to year the following sums :

1. The amount necessary to meet all interest on the Debentures issued for the purchase of the Hydro-Electric enterprise ;
2. The amount necessary to constitute a sinking fund which, accumulating at a given rate of interest, shall be sufficient to pay off the Debentures at maturity ; and
3. The amount necessary to accumulate by the end of the wearing lifetime of the plant, a fund sufficient to replace the same, without making any further demand upon the City for new issues of Debentures for replacement purposes.

This policy your Commissioners believe to be in accordance with the requirements of sound finance.

**Progress** The business of the System continues to increase.  
**During 1916,** The gross income for the year 1916 was 5.3% in advance of that of 1915. The increase in the commercial income was 5.5%. The support of the general public is being received in increasing measure as will be seen from the fact that the Commercial income for the year amounted to 67.0% of the total against 66.4% in 1915, 63.9% in 1914 and 59.05% in 1913.

The success of the System's endeavors to stimulate the use of electric current is shown by the fact that over 139,000,000 kw. hrs. were sold during the year. It is interesting to compare this with the 35,176,500 kw. hrs. sold during the year 1912 which was the first complete year of the System's operations. The following table shows further details of the progress of the System :

Particulars	At 31st December, 1915	At 31st December, 1916	Increase
Customers .....	38,834	43,877	5,043 = 13%
Meters in use.....	39,284	44,013	4,729 = 12%
Street Lanterns in use .....	43,411	45,212	1,801 = 4.2%
K.W. Hrs. sold for yrs. ended	109,501,981	139,003,756	29,501,775 = 27%
Connected Load H.P. ....	111,413	125,840	14,427 = 13%
Peak Load, H.P. Dec. ea. yr..	40,180	47,165	6,985 = 17.4%

**Rates.** An intimation was given in the Fifth Annual Report of the probable effect of the rate reduction that was put in force in the early part of the year 1916. The actual effect of this

reduction is now shown by the following figures applicable to the complete years 1915 and 1916:—

Class of Service	Year 1915	Year 1916	Average Reduction
Residence Lighting .....	3.86 cents	2.98 cents	22.8%
Commercial Lighting .....	2.86 cents	2.35 cents	17.8%
Commercial Power .....	1.23 cents	.89 cents	27.6%

The benefits of this reduction are further evidenced by the fact that the current sold in the year 1916 cost the consumers of the System approximately \$190,000.00 less than it would have cost them under the rates prevailing in the year 1915. Comparing the amount which the Hydro customers have paid in the aggregate for current during the five years ended December 31st, 1916, with the amount which they would have paid on the same consumption at the old rates, shows that a saving of approximately \$6,000,000.00 has been effected. Assuming that a similar saving has been experienced by other users of electric power in the City owing to Hydro competition, it will be seen that the total saving to users of electricity in the City is much in excess of the amount spent on the Toronto Hydro-Electric System to date.

**Enlargement of the System** The increase in the number of customers of the System and in the quantity of power sold has necessitated appreciable additions and extensions to the plant of the System. As has been pointed out in previous reports further increases in the plant will be required as long as the demands of the public continue to expand.

By-Laws Nos. 7584 and 7642 authorizing a further issue of \$1,248,000.00 5% debentures for Hydro purposes, maturing July 1st, 1944, were passed by the City Council and approved by the Ontario Railway and Municipal Board during the year.

As will be seen from the footnote to the Balance Sheet, the excess discount on the debentures issued by the City under the first two By-Laws has been refunded to the Commission out of the proceeds of debentures issued under the authority of By-Law No. 7643.

**Reduction in Cost of Power** As from February 1st, 1916 the Hydro-Electric Power Commission of Ontario reduced the rate for power delivered to the System from \$15.00 per H.P. per annum to \$14.50 per H.P. per annum, a reduction of  $3\frac{1}{3}\%$ .

**Purchase of Interurban Electric Co.'s Assets.** During the year your Commissioners entered into negotiations for the purchase of the assets of the Interurban Electric Co. A tentative agreement was reached under which the System early in the present year undertook the operation of the Interurban Electric Co.'s lines, until such time as the customers could be transferred to the lines of the System.

**Re Supply of Power.** In view of the rapid increase in the demands for power from Niagara Falls anxiety has been created in the public mind as to whether there may not be a curtailment in the supply required by the System as its needs expand. While this is a matter requiring serious consideration and prompt action on the part of those responsible, your Commissioners have received no information up to the present time from the Hydro-Electric Power Commission of Ontario that the limit of available power has been so nearly reached as to render it inadvisable to take on further business. They are advised that steps are being taken to insure an adequate supply of power in the future. At the present time the power supply for the City of Toronto is carried on four circuits with two separate tower lines from Niagara Falls to Dundas and on two circuits with one tower line from Dundas to Toronto. A second tower line which will carry two additional circuits from Dundas to Toronto is now under construction. The existing circuits are being reinforced to take care of the increased quantity of power required, and while there have been during the year 1916 a few unavoidable interruptions of short duration in the supply of power to the System the probability of future troubles of this nature is diminishing.

**Patriotic Expenditures** Substantial outlays have again been necessitated during the past year by way of subscriptions to patriotic and other funds and by way of allowance to employees on active service and their dependents.

**Power for Munition Work.** In view of the coal famine which existed during the winter of 1916-1917, and the necessity for a maximum production of munitions of war, it will be a source of satisfaction to those who are interested in the progress of the Hydro movement to know that between 20,000 H.P. and 30,000 H.P. has been

supplied by the System during the year for use in munition factories, and that this amount will probably be largely increased during the year 1917. It cannot be doubted that the availability of power for this purpose has resulted in a much greater output of munitions from the City of Toronto than would otherwise have been possible.

**Operating Expenses.** Notwithstanding the large increase in the amount of electrical energy sold by the System, the prevailing high cost of material and the abnormal business conditions at present existing, the Commissioners are gratified to note that the expenses of operation and management, including repairs and maintenance, have by strict economy again been reduced below the figure of the preceding year.

**Conclusion.** In conclusion, the Commissioners desire to testify to the efficient services of the General Manager and the staff, and to thank the public for their continued confidence in the enterprise and their effective support.

Respectfully submitted by

THE BOARD OF COMMISSIONERS.

P. W. ELLIS,  
*Chairman.*

T. L. CHURCH,  
*Mayor.*

R. G. BLACK,  
*Commissioner.*

# CERTIFICATE OF AUDITORS

---

Toronto, May 31st, 1917.

*To the Commissioners of  
The Toronto Hydro-Electric System:—*

We have audited the books and accounts of the Toronto Hydro-Electric System, for the twelve months ended December 31st, 1916, and certify that the attached Balance Sheet is properly drawn up, and, in our opinion, shows the true financial condition of the System as at December 31st, 1916.

We have examined the Accounts Receivable and are satisfied that provision has been made for all doubtful accounts. We have verified the cash balances, also the funds in the City Treasurer's hands.

(Sgd.) WALTER STERLING,

(Sgd.) W. A. TOLLEY, F.S.A.A. (Eng.)

*Chartered Accountant.*

} *Auditors.*

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHOWING NET INCOME

### Charges.

To Cost of Electric Current.....	\$529,180.54
To Expenses of Operation and Management including Repairs, Maintenance and Ac- crued Charges. Provision for proportion of Special Depreciation of Leasehold Build- ings and Improvements (\$9,390.45) and Reserve for Doubtful Accounts Receivable	542,953.62
	\$1,072,134.16
To Net Income available for Fixed Charges carried forward to Section II	634,042.84
	\$1,706,177.00

## SECTION II: SHOWING DIS-

To Interest.....	\$302,297.96
To Depreciation .....	208,388.09
To Sinking Funds:	
Under City By-Law No. 5036.....	\$36,471.00
Under City By-Law No. 5918.....	34,254.00
Under City By-Law No. 6674.....	9,283.00
Under City By-Law No. 7176.....	13,262.00
	\$93,270.00
To Redemption Fund:	
Under City By-Laws Nos. 7584 and 7642.....	10,684.46
	\$103,954.46
Under Agreement with Provin- cial Hydro-Electric Power Commission re supply out- side City.....	662.38
	\$104,616.84
To Interest on past due Sinking Fund Instalments.....	343.14
	104,959.98
To Net Income carried to Surplus	18,396.81
	\$634,042.84



## Electric System for Year ended 31st December, 1916

### FROM OPERATIONS OF YEAR.

<u>Income.</u>	
By Sale of Current for :	
Lighting .....	\$607,424.25
Power .....	615,282.59
Street Lighting.....	361,920.32
Exhibition.....	17,931.35
Bulk Supply and other Municipalities.....	60,544.26
	<hr/> \$1,663,102.77
By Income from Sundry other Sources.....	43,074.23
	<hr/>
	<u>\$1,706,177.00</u>

### POSITION OF NET INCOME.

By Net Income available for Fixed Charges brought forward from Section I. ....	\$634,042.84
	<hr/>
	<u>\$634,042.84</u>

# Balance Sheet as at 31st December, 1916, of

## ASSETS

### Fixed Assets

Lands, Buildings, Transmission System, Sub-Station Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department, Miscellaneous Equipment, and Miscellaneous Construction and Equipment Expenditures and Exhibition Construction and Equipment .....	\$6,827,641.13	
Leasehold Premises and Improvements .....	74,357.39	
	<u>\$6,901,998.52</u>	
Debenture Discount and Expenses .....	599,188.25	
(See explanatory foot-note.)		<u>\$7,501,186.77</u>

NOTE:—(Provision for writing off Debenture Discount and Expenses at the maturity of the respective Debenture issues is secured by the annual charges against the earnings in respect of Sinking Fund.)

### Current Assets

Stores on Hand and Apparatus on Loan less Reserve for Contingencies .....	\$ 425,259.74	
Accounts Receivable (including Orders in Progress) less Reserve for Estimated Losses \$37,667.54 .....	241,461.01	
Capital Funds in hands of City Treasurer .....	650,000.00	
Cash in Bank and on hand .....	60,141.95	
		<u>\$1,376,862.70</u>
Deferred Charges to future Operations .....	—	4,122.20

NOTE:—

Debenture Discount and Expenses..... \$1,049,595.80  
Deduct: Amount received from City of Toronto, being proceeds of an issue of Debentures and accrued Interest thereon under By-Law No. 7643, to reimburse the Toronto Hydro-Electric System for a proportion of Discount and Expenses on the sale of Debentures under By-Laws Nos. 5036 and 5918. The liability in respect of By-Law No. 7643 is assumed by the City of Toronto in accordance with Report No. 42 of the Board of Control which was adopted by the City Council on November 19th, 1914.....

450,407.55	
<u>\$ 599,188.25</u>	<u><u>\$8,882,171.67</u></u>

# the City of Toronto Hydro-Electric System

## LIABILITIES

### Capital Account

Corporation of City of Toronto:—

By-Law No. 5036, Cash Advanced.....	\$2,240,124.55	
Debenture Discount and Expenses.....	509,875.45	
		\$2,750,000.00
By-Law No. 5918, Cash Advanced.....	\$1,816,774.89	
Debenture Discount and Expenses.....	383,225.11	
		2,200,000.00
By-Law No. 6674, Cash Advanced.....	\$ 641,335.00	
Debenture Discount and Expenses.....	58,665.00	
		700,000.00
By-Law No. 7176, Cash Advanced.....	\$ 906,700.00	
Debenture Discount and Expenses.....	93,300.00	
		1,000,000.00
By-Laws Nos. 7584 and 7642, Cash Ad'd.....	\$1,243,469.76	
Debenture Discount and Expenses.....	4,530.24	
		1,248,000.00
Total Bonded Debt.....		\$7,898,000.00
Less Funds in City Treasurer's hands for redemption .....		590,195.03
Net Bonded Debt.....		\$7,307,804.97

### Current Liabilities

Accounts Payable and Accrued Charges.....	166,789.53
---	------------

### Reserves

For Depreciation of General Assets.....	\$ 694,331.46	
For Depreciation of Leasehold Property.....	42,475.77	
For Contingencies.....	6,500.00	
For Sinking Fund.....	590,195.03	
For Redemption of Serial Debentures.....	10,684.46	
		1,344,186.72
Surplus .....		63,390.45
		<u>\$8,882,171.67</u>

## Surplus as at 31st December, 1916, of

To Sinking Fund Suspense Account.....	\$ 93,733.96
To Grants for Patriotic Purposes brought forward from 1915.....	10,000.00
To Amount Reserved for Bad Debts charge- able to former years.....	22,420.74
To Miscellaneous Charges not attributable to Operating Expenses of year.....	4,807.11
To Payments during year to Employees En- listed for Active Service and other Patri- otic Grants .....	25,137.48
To Balance carried forward .....	63,390.45
	<u>\$219,489.74</u>

# the City of Toronto Hydro-Electric System

By Balance brought forward from 1915.....	\$ 3,137.79
By Reserve for Accounts Receivable as at December 31st, 1915, for Moving Poles (no longer necessary).....	\$ 25,500.00
By Amt. from Readjustment of Depreciation	172,455.14
By Net Income for year as per Revenue Account .....	18,396.81
	216,351.95

\$219,489.74

226-8 Yonge Street

Toronto

7th June, 1917

## General Manager's Annual Report

---

*The Toronto Electric Commissioners.*

GENTLEMEN:—

Herewith I beg to submit my report on certain features of the Toronto Hydro-Electric System during 1916, the sixth year of operation.

**Growth of the Enterprise**      The year has been one of substantial progress in spite of the continuance of the war. Four sets of curves are appended hereto (see pages 31 to 34) which give the progress to date and comparison year by year. From these curves it will be noticed:

- (a) The Total Kw. Hrs. sold amount to over 139 millions, an increase of over 29 millions, or approximately 27% over 1915 (see page 31). It is significant to note that the bulk of this increase is for Private Services, amounting to about 27 million Kw. Hrs.
- (b) The *Total Revenue* shows an increase of \$93,000.00, or practically 6% over 1915 (see page 32). This comparatively small increase is due to the Rate Reduction which came into force at the beginning of the year. As an illustration it may be stated that if the 1915 rates had been in force during 1916, the Revenue would have been increased by close on \$200,000.00. To this extent, therefore, the System's Customers have directly benefited during the year.
- (c) The *Total Private Customers* at the end of the year number 43,460, with a connected load of over 70,500 kilowatts. The greatest increase has been from Power Customers, largely due to war contracts which are continually assuming larger proportions, so much so that within the next month or two it is anticipated that the System will be supplying about 50,000 horse-power of plant engaged on war work.
- (d) *Capital Expenditure* (see page 33). The increase has been somewhat greater than in the two preceding years, due to the impossibility of longer postponing necessary work without endangering the service. All Capital Expenditure that is not





IMPROVED DOWN TOWN. *500 Watt Gas Filled*



— FIVE LIGHT CLUSTER *100 Watt per lamp* —



STANDARD OVERHEAD *100 Watt*



LOCAL IMPROVEMENT PLAN. — UNDERGROUND



UNIVERSITY AVE. (Concrete polo) *500 Watt Gas Filled*

(e) The *Peak Load* shows a considerable increase, the sustained 20-minute peak on December 4th being 47,165 H.P. (see page 33). This increase is, in my opinion, primarily due to the power and lighting load overlapping to an abnormal extent on account of the present long-hour use of power, particularly by munitions plants. The general effect of Rate Reduction also tends in a similar direction. As a matter of fact, the peak would have been even larger had it not been for the reduction effected by some of the System's users at that time.

(f) The *Revenue per Kw. Hr.* again shows a substantial decrease due to Rate Reduction. (See page 33.) This is shown by the following:

(g) *The Surplus on the year's working*, in spite of the Rate Reduction, however, amounted to \$18,396.81. It therefore means that the System maintains its financial position in spite of the greatly increased cost of practically everything purchased (excluding power) and a very substantial reduction in the selling prices.

*Operation and Maintenance.* This again shows a decreased total cost over the preceding year. In other words, although in 1916 over 29 million more Kw. Hrs. have been sold than in 1915, yet the total cost of operating is lower. This is the second year in succession that this result has been achieved, in spite of the rapid and continuous increase in the cost of all supplies purchased. The following figures illustrate this point:—



OUTSIDE VIEW CARLAW BRANCH STORE



INTERIOR CARLAW BRANCH STORE



INTERIOR CARLAW BRANCH STORE



INTERIOR VIEW GROUND FLOOR EAST END SUB-STATION



### New Work.

Extensions of the following Sub-stations were put in hand or completed during the year :

Duncan St.,  
Junction,  
Front St.

also the East End and Stanley Park extensions have been completed.

Additional transformers, regulators and rotaries have been installed through the System generally.

The Civic Car Line on Lansdowne Avenue was put into service on January 15th, 1917. This is fed by the System from the Junction Sub-station.

A considerable extension of the By-passing of the Ring Mains has been carried out in order to further safeguard the supply in the City. The work involved the laying of about 56 miles of duct with  $7\frac{1}{2}$  miles of underground cable.

Other underground cable extensions of some magnitude carried out during the year include the following :—

Terminal Station to Junction,

Terminal Station to Market.

### Sales Department.

The work of preparing the first Branch Appliance Shop was completed so that the Carlaw Branch was opened at the beginning of the present year.

This Branch is incorporated in the new Sub-station Building, and constitutes a new departure for the System. (For illustrations see page 21.) There is every indication that this departure will prove a success. Increasing use of the facilities offered is being made by the Residents in the Eastern Section of the City, for paying accounts, purchasing lamps and appliances and seeing these appliances demonstrated. The main object of the Branch is to give local personal touch, which is of very great value in the present day.

The general lamp shortage last winter caused a run on the System's stock, but all the needs of the System's Customers were met at prices which compared very favorably with others then obtaining. In addition it was a pleasure to be of assistance as far as possible to others not Hydro



JUNCTION SUB-STATION. (*Showing extended Building*) Note additions to Original Building.



DUNCAN ST. SUB-STATION. (*Birds-eye view of Extension in progress.*)

Customers, whose regular supply of lamps was discontinued at a time of general shortage. This policy helped to demonstrate that the Hydro is here to assist the public in any way possible without discrimination.

The System co-operated in the Ideal Home Show held during the second week in April, as well as at the Canadian National Exhibition, at both of which valuable educational work was done by the Appliance Department.

As an indication of the activities of the Appliance Department during 1916, it may be stated that over 18,500 articles were sold from the Hydro shop (excluding lamps), an increase of over 30% as compared with the preceding year.

**General.** A number of items which have been under discussion for some years have been settled. As an illustration of the more important, the cost of moving poles, the rental to be paid for City property occupied by the System, and the liability to be assumed in respect of the old North, East and West Toronto electrical undertakings absorbed by the System may be mentioned.

Also the boundary line has been agreed between the property of the C. P. R. Co. and the System at the Junction Sub-station.

Unfortunately the question of general supply in York Township, where the System act as Agents for the Hydro-Electric Power Commission of Ontario, is still unsettled.

The rates for service outside the City were during the year put on the standard basis applicable to such service.

Confusion having been caused to the public between the name of the System and that adopted by certain private firms, this matter was followed up and steps taken which it is hoped will effectively remove the trouble.

The following By-Laws were authorized during the year :

By-Law No.	Dated	Amount of By-Law
7584 and 7642	1st July	\$1,248,000.00
7643	1st July	443,100.56

The last mentioned finally disposed of the matter of the debenture discount on the original sanctions.



**Employees  
with the  
Colours.**

The Commissioners have continued the grant to those employees or their dependents) in receipt of grants as at the commencement of the year.

All expenditure for this purpose to date has been paid out of the System's earnings.

The Honour Roll is appended, and it is with regret we record additional casualties. A number of additional names appear as compared with 1915.

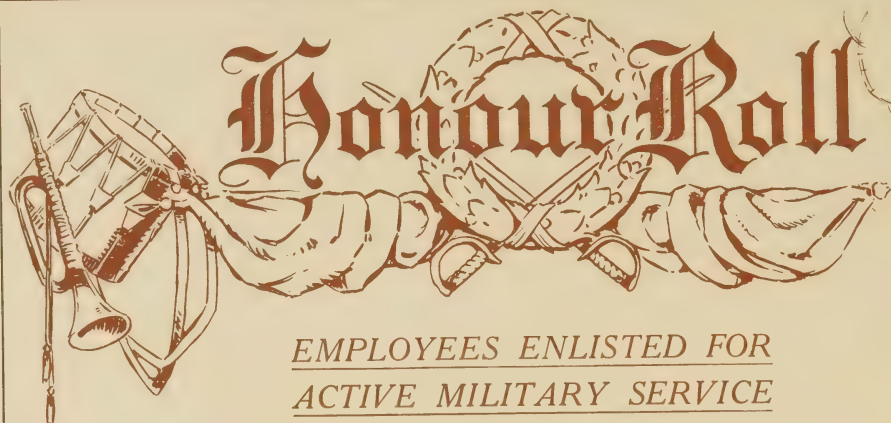
In conclusion, I have great pleasure in testifying to the valuable services rendered by the Staff, to whose efforts, combined with the splendid support of the public, is very largely due the measure of success attained in the past.

Our thanks are also due to those Civic Officials who have so kindly co-operated in helping the System.

I am, Gentlemen,

Your obedient servant,

H. H. COUZENS,  
*General Manager.*



## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### *REPORTED KILLED IN ACTION*

NAME	REGIMENT OR BATTALION	RANK
H. J. COSH - - -	Princess Patricia's - - -	Private
H. BAND - - -	15th Battalion - - -	Sergeant
J. DEWAR - - -	15th Battalion - - -	Private
* J. DUGUID - - -	Gordon Highlanders - - -	Private
R. FLAXMAN - - -	15th Battalion - - -	Private
W.M. WORDEN - - -	39th Battalion - - -	Private
J. E. WOOLLEY - - -	19th Battalion - - -	Private
A. H. CARSWELL - - -	134th Battalion - - -	Sgt.-Major
T. LEE - - -	95th Battalion - - -	Private

### *REPORTED MISSING*

A. A. THORNE -	P.P.C.L.I 11th Res.	
	Signal Base - - -	Private

### *DISCHARGED OWING TO WOUNDS*

S. PETERS - - -	3rd Battalion - - -	Corporal
-----------------	---------------------	----------

### *REPORTED WOUNDED*

R. J. WHITEMAN -	3rd Battalion - - -	Private
H. J. MacTAVISH -	19th Divisional Ammunition	Lieut.
W. THORNTON -	75th Battalion - - -	Private
J. F. M. NIXON -	3rd Battalion - - -	Sergeant
W. A. REID - - -	1st Divisional Cyclists -	Private
W. GRAHAM - - -	19th Battalion - - -	Private

### *REPORTED PRISONERS OF WAR*

J. CHADWICK -	15th Battalion - - -	L.-Corporal
E. HYDE - - -	3rd Battalion - - -	Private
E. RODGERS - - -	15th Battalion - - -	Sergeant
F. HOUSE - - -	15th Battalion - - -	L.-Corporal

\* British Army Reservist





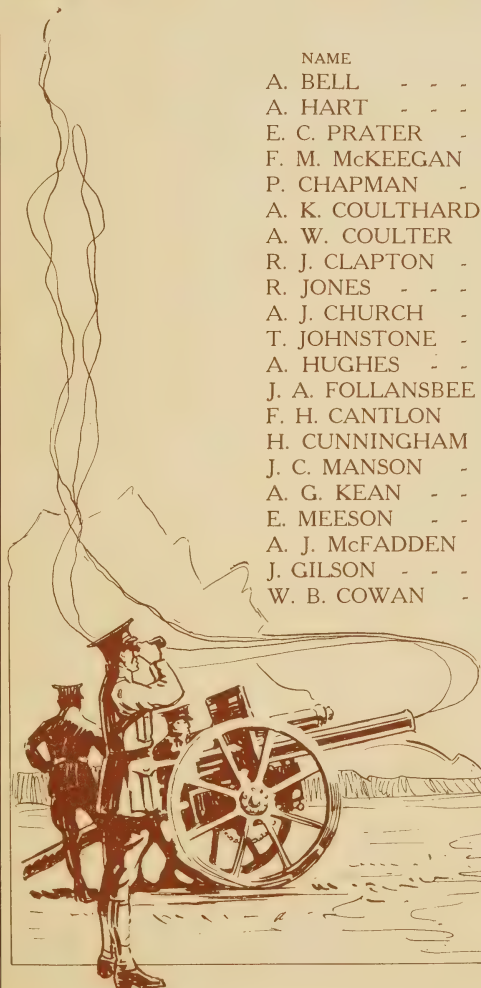
# Honour Roll

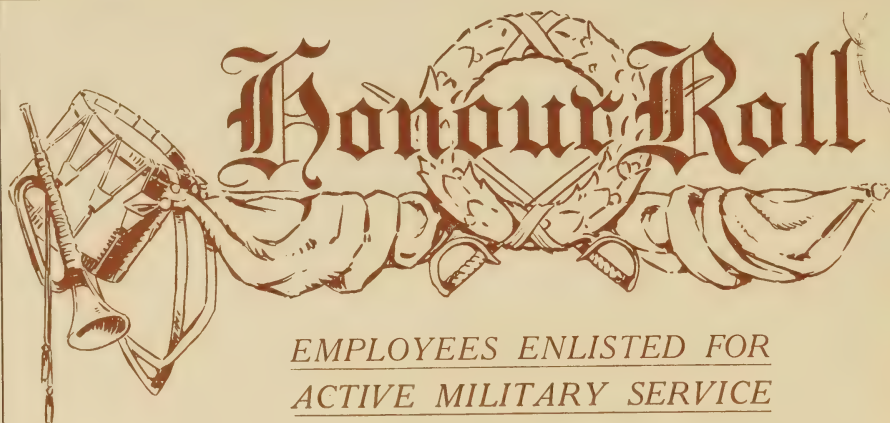


## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### ON ACTIVE SERVICE

NAME	REGIMENT OR BATTALION	RANK
A. BELL - - - -	A.M.C. Field Ambulance - - - -	Private
A. HART - - - -	15th Battalion - - - -	Private
E. C. PRATER - -	Army Medical Corps - - - -	Private
F. M. McKEEGAN -	Army Medical Corps - - - -	Private
P. CHAPMAN - - -	75th Battalion - - - -	Private
A. K. COULTHARD -	3rd Battalion (Military Medal) -	Sergeant
A. W. COULTER - -	1st Div. Machine Gun Co. - - -	Lieut.
R. J. CLAPTON - -	3rd Battalion - - - -	Sergeant
R. JONES - - - -	3rd Battalion - - - -	Private
A. J. CHURCH - - -	1st Div. Sig. Co. - - - -	Private
T. JOHNSTONE - -	Army Service Co. - - - -	Private
A. HUGHES - - - -	4th Brigade - - - -	Private
J. A. FOLLANSBEE -	19th Battalion - - - -	Sergeant
F. H. CANTLON - -	Casualty Depot, England - - -	Ser.-Instr'tor
H. CUNNINGHAM -	Army Medical Corps - - - -	Private
J. C. MANSON - - -	Engineers, Wireless Signals - -	Lieut.
A. G. KEAN - - - -	Army Service Corps - - - -	Corporal
E. MEESON - - - -	Army Service Corps - - - -	Corporal
A. J. McFADDEN -	1st Battalion - - - -	Private
J. GILSON - - - -	20th Battalion - - - -	Private
W. B. COWAN - - -	2nd Div. Cyclists - - - -	Lieut.
A. HEARD - - - -	20th Battalion - - - -	Private
J. A. TILSON - - -	Engin'rs, Ry. Con.Sapper	
S. H. MUNRO - - -	Artillery, 23 Bty. Driver	
G. W. HARRIS - - -	36th Battalion - - - -	Private
T. W. KIRKPATRICK		
	Artillery, 26 Bty. Gunner	
H. JEX - - - -	Army Service Co. Private	
R. J. PEARCE - - -	4th Bat., 1st Brig. Private	
T. SIMPSON - - - -	92nd Battalion Corporal	
C. H. W. NOBLE - -	Army Service Co. Private	
A. J. WRIGHT - - -	Royal Fly'g Corps Lieut.	
J. CURRIE - - - -	75th Battalion - - - -	Private





## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### ON ACTIVE SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
W. A. STEEL	- 2nd Military Div. Headquarters Signal Staff	Ser.-Instr'tor
C. MILLER	- 127th Battalion	Private
A. FERGUSON	- 92nd Battalion	Private
E. WILSON	- 92nd Battalion	Private
J. JACKSON	- R.C.H.A. 3rd Res. Battery	Bombardier
R. BAKER	- 58th Battalion	Private
D. LAIDLAW	- 92nd Battalion	Private
R. MEESON	- Mechanical Transport	Lieut.
T. H. STEWART	- 92nd Battalion	Corporal
R. SANDFORD	- 92nd Battalion	Sgt.-Major
W. H. RUSSELL	- 3rd Div. Cyclists	Private
W. ROBERTSON	- No. 4 Canadian Sig. Corps	Private
J. E. WITHERS	- C.F.A. 2nd Res. Battery	Sergeant
W. G. CAMBRIDGE	- 92nd Battalion	Private
W. GIBSON	- 83rd Battalion	Sergeant
C. A. OLIES	- Can. Engineers, Signal Div.	Sapper
G. DENNISTON	- C.F.A. 45th Battery	Private
M. WHITE	- 58th Battalion	Sergeant
C. FAIRWEATHER	- 92nd Battalion	Private
H. A. LAWSON	- C.F.A. 1st Brigade, 4th Bty.	Signaller
F. C. BARKER	- C.F.A. 9th Brigade	Lieut.
H. B. KIMBER	- Army Medical Corps	Corporal
A. G. EVANS	- 75th Battalion	Private
H. E. LOVE	- 95th Battalion	Co.Q.M.Sgt.
G. D. DUDLEY	- 35th Battalion	Private
H. R. BRUCE	- 166th Battalion	Sergeant
A. GREEN	- Army Service Corps	Driver
L. J. MERRETT	- 123rd Battalion	L.-Corporal
L. A. DICKSON	- Army Service Corps	Private
P. ACKROYD	- R.C.H.A. "C" Battery	Sergeant
W. H. O'BRIEN	- 123rd Battalion	Sergeant
H. E. EVANS	- C.F.A. 53rd Battery	Corporal

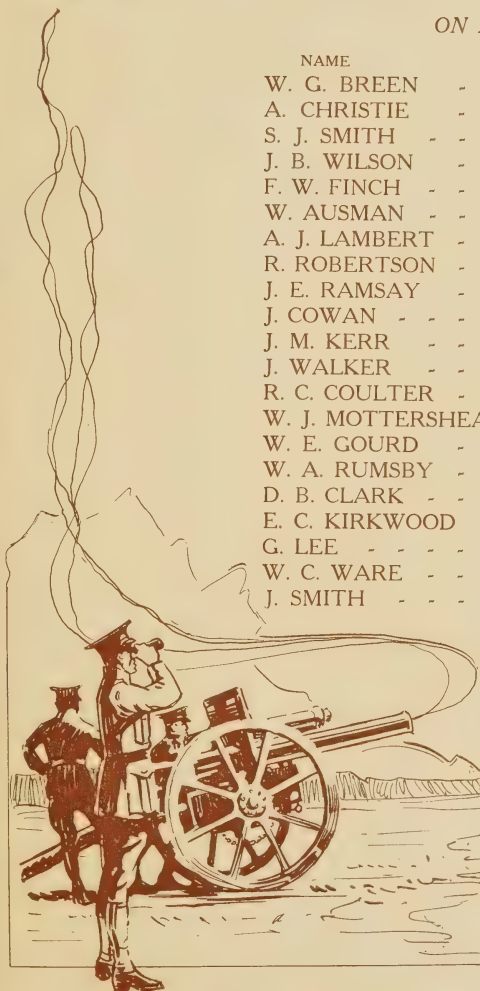


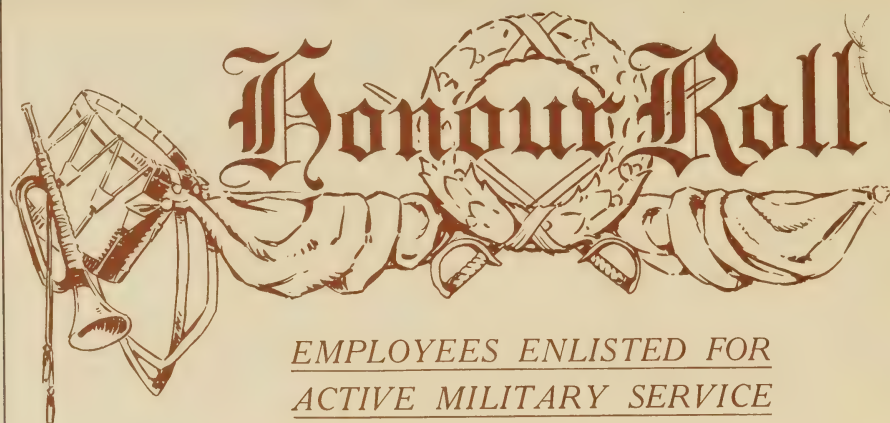




ON ACTIVE SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
W. G. BREEN	- - 126th Battalion - - - -	Private
A. CHRISTIE	- - 124th Battalion - - - -	Private
S. J. SMITH	- - 124th Battalion - - - -	Private
J. B. WILSON	- - C.F.A. 34th Battery - - - -	Gunner
F. W. FINCH	- - 124th Battalion - - - -	Private
W. AUSMAN	- - 134th Battalion - - - -	Private
A. J. LAMBERT	- - C.F.A. 34th Battery - - - -	Gunner
R. ROBERTSON	- - 134th Battalion - - - -	Private
J. E. RAMSAY	- - 166th Battalion - - - -	Sergeant
J. COWAN	- - 134th Battalion - - - -	Private
J. M. KERR	- - 134th Battalion - - - -	Private
J. WALKER	- - 134th Battalion - - - -	Private
R. C. COULTER	- - 126th Battalion - - - -	Private
W. J. MOTTERSHEAD	169th Battalion - - - -	Sergeant
W. E. GOURD	- - 169th Battalion - - - -	Private
W. A. RUMSBY	- - 166th Battalion - - - -	L.-Corporal
D. B. CLARK	- - Engineers - - - -	Sapper
E. C. KIRKWOOD	- - Army Service Corps - - - -	Private
G. LEE	- - 198th Battalion - - - -	Bugler
W. C. WARE	- - 169th Battalion - - - -	Private
J. SMITH	- - Engineers B. I. Co. - - - -	L.-Corporal
W. N. TAYLOR	Army Service Co. Private	
W. F. ROSE	- 166th Battalion Private	
B. U. HARGREAVES	169th Battalion Private	
S. BECKETT	- Engineers, 2nd Field Co. - Sapper	
W. W. SIMMONS	44th Reg. Gd. Co. Private	
H. C. STACEY	124th Battalion Private	
W. J. HAMILTON	166th Battalion Private	
F. W. JARVIS	127th Battalion Private	
J. FRAME	- - Army Service Co. Private	
V. O. BROOKS	180th Battalion Private	
E. MORGAN	- 166th Battalion Private	





## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

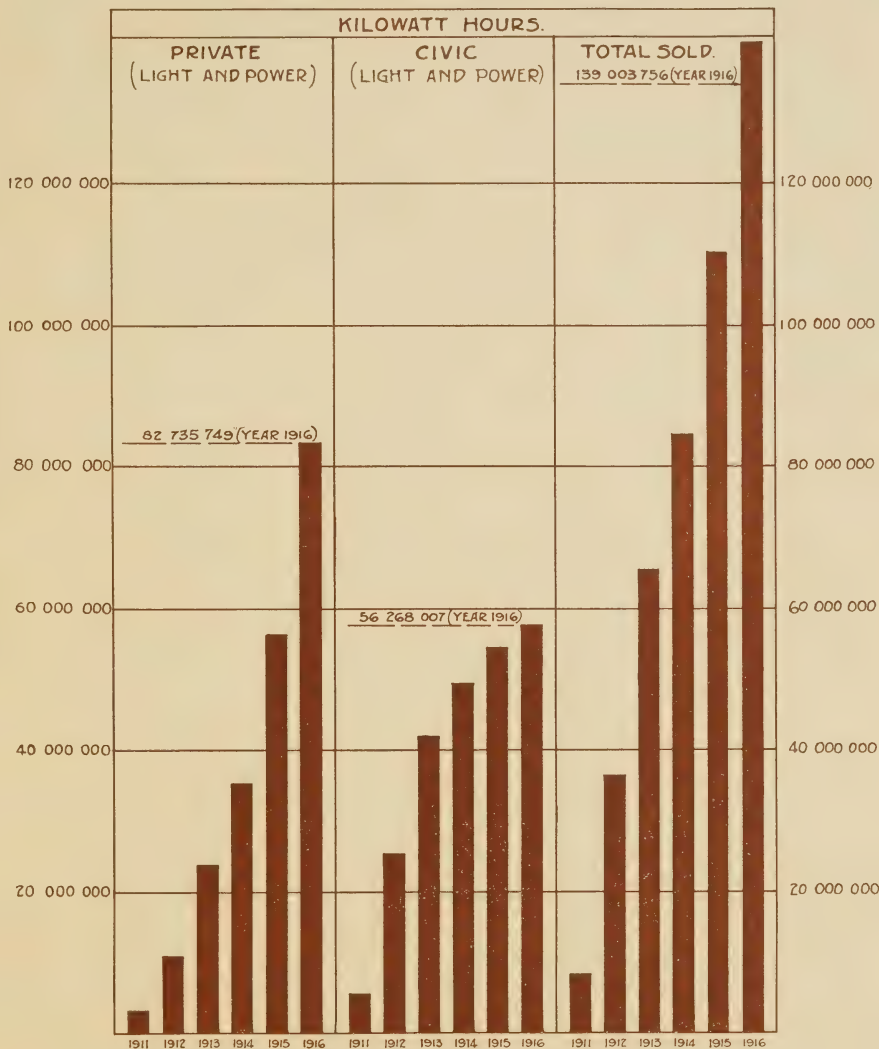
### ON ACTIVE SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
A. JAMIESON	- - 169th Battalion - - -	Private
T. CLERK	- - 216th Battalion - - -	Corporal
R. S. FOWLER	- R.C.H.A. "C" Battery	Sgt.-Major
A. H. GRANT	- - R.C.H.A. "C" Battery	Gunner
R. H. GRANT	- - C.F.A. 53rd Battery -	Gunner
P. MALPAS	- - R. E. P. I. Co. - - -	Private
F. LOMAS	- - 204th Battalion - - -	Private
M. MACKAY	- - 204th Battalion - - -	Private
J. A. WHYTE	- - 204th Battalion - - -	Co. Q.M.S.
R. RICHARDS	- 170th Battalion - - -	Private
D. E. IRWIN	- - 92nd Battalion - - -	Private
J. H. FORD	- - 198th Battalion - - -	Private
W. G. BAKER	- 220th Battalion - - -	Private
J. WRAY	- - 208th Battalion - - -	Private
F. A. STARR	- - R.C.H.A. "C" Battery -	Gunner
R. LUND	- - 4th Pioneer Battalion -	Private
J. M. CARLISLE	- Engineers 2nd Field Co.	Sapper
E. SECORD	- - Guides, Can. Ordnance	Guide
H. POOLE	- - 201st Battalion - - -	Private
W. P. CARLTON	- 220th Battalion - - -	Private
WM. POINTON	- No. 2 C.A.S. Corps -	Captain
WM. CLARK	- 1st Con. Overseas Battalion	Private
JOHN PAYNE	- 238th Battalion - - -	Private
G. L. GARRATT	- Royal Flying Corps	(2nd Class Mechanic
H. A. RUSSELL	- Royal Flying Corps	
J. E. DAY	- - Royal Flying Corps -	
HAROLD POTTER	- 70th Battery, C.F.A. -	Gunner
T. H. HODGINS	- Can. Mounted Rifles	Corporal
SAMUEL BAIRD	- Royal Can. Horse Artillery	
WM. J. RYAN	- - Royal Flying Corps -	
JOHN A. SIMPSON	- Signalling Corps - - -	
F. W. FIRTH	- - Royal Flying Corps -	
W. E. TOY	- - Royal Flying Corps -	





## SALE OF ELECTRICAL ENERGY



TORONTO HYDRO-ELECTRIC SYSTEM.  
1916 REPORT.

## REVENUE FROM SALE OF CURRENT

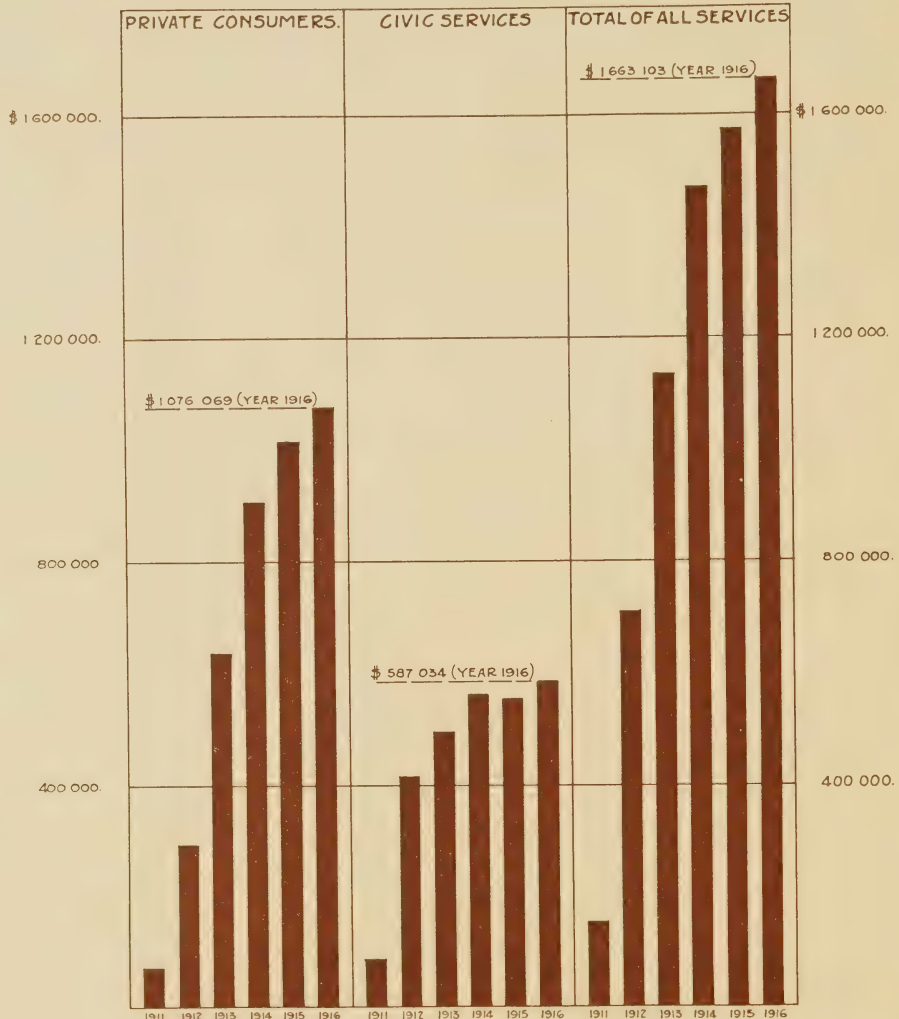
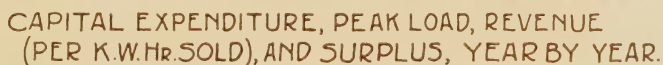


DIAGRAM SHOWING THE COMPARATIVE GROWTH OF  
 THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES  
 OF SERVICE, YEAR BY YEAR.

NOTE: REDUCTION IN THE RATES CHARGED  
 FOR ELECTRIC SERVICE WERE MADE AT  
 THE BEGINNING OF THE YEAR 1915 AND  
 ALSO 1916.

TORONTO HYDRO-ELECTRIC SYSTEM  
 1916 REPORT



TORONTO HYDRO ELECTRIC SYSTEM.  
1916 REPORT.



GROWTH OF BUSINESS YEAR BY YEAR.

SEPARATE SERVICES.

TORONTO HYDRO-ELECTRIC SYSTEM.  
1916 REPORT.





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# The TORONTO HYDRO ELECTRIC SYSTEM

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SEVENTH  
ANNUAL REPORT  
— 1 9 1 7





Government  
Publications

*With the compliments of*  
*The Commissioners*



# THE TORONTO HYDRO-ELECTRIC SYSTEM



THE SEVENTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS



# Commissioners' Report

*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto,*

TORONTO

Gentlemen:—

Your Commissioners beg to submit their Seventh Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements of the Toronto Hydro-Electric System for the year ended 31st December, 1917. The annexed Balance Sheet and the books and accounts of the System have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended hereto.

**Financial Position as at**      The operations for the year 1917 have  
**31st December, 1917**      resulted as follows:

The gross income amounted to the sum of.....	\$2,049,382.98
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of..	1,294,022.96
Leaving a surplus of income on operating account for 1917 of.....	\$755,360.02
Interest, Depreciation and Sinking Funds for the year absorbed the sum of.....	720,892.96
Leaving a surplus of net income of.....	34,467.06

At this, the close of slightly over six complete years of operation, during which time two rate reductions have taken place, it may be of interest to point out that the enterprise has fully paid its way, and earned a surplus of \$75,819.30. Not a dollar has been charged to capital account that should have been charged to revenue. The System has earned Sinking Fund and Funds for the redemption of serial debentures amounting in all to \$744,036.94, and since the maintenance of the System's plant has been paid for out of revenue, and replacements have been provided for by the establishment of a Depreciation reserve, it will be evident that the surplus and Sinking Funds together, amounting in all to \$819,856.24, constitute the net earnings of the enterprise over and above all operating, interest and depreciation charges for the period under consideration.

**Progress During 1917** The conditions existing during the year 1917 have been unusual, and the business of the System has undoubtedly been affected by the power shortage to which further reference is made below. Notwithstanding this fact, the gross income for the year 1917 was 20.1% in advance of that in 1916. The increase in the commercial income was 29.3%. The commercial income for the year amounted to 71.8% of the total, against 67.0% in 1916, 66.4% in 1915, 63.9% in 1914 and 59.05% in 1913.

The following table shows further details of the progress of the System:

Particulars	At 31st Dec., 1916	At 31st Dec., 1917	Increase
Meters in use.....	44,013	50,461	6,448 = 15%
Street Lanterns in use.....	45,507	45,841	334 = 7/10%
K.W. Hrs. sold for years ended.	139,003,756	171,691,213	32,687,457 = 24%
Connected Load H.P.....	125,840	169,818	43,978 = 35%
Peak Load, H.P. Dec. each year	47,165	56,562	9,397 = 20%

**Rates** While the prices of almost every other commodity continue to advance to levels formerly unknown, it is gratifying to note that the average charge per kilowatt hour for service supplied by the Toronto Hydro-Electric System has again reached a new low record as shown in the following table:

Class of Service	Year 1916.	Year 1917.	Average Reduction.
Residence Lighting.....	2.98 cents	2.70 cents	9.4%
Commercial Lighting.....	2.35 cents	2.16 cents	8.1%
Commercial Power.....	.89 cents	.80 cents	10.1%

**Power Shortage** Owing to the very heavy demands upon the Hydro-Electric Power Commission of Ontario, from which the power sold by the System is purchased, and the urgency of these demands due to the fact that the principal requirements are for the manufacture of war supplies, it was considered advisable during the month of October to cease canvassing for new business in order to save as much power as possible for this important national work. The situation has at times been difficult especially during the winter months and it has been necessary since the first of the present year to reduce the number of street lights. Stringent regulations are in force prohibiting



the use of lighting for advertising and display purposes. During periods of acute shortage preference is given to feeders carrying the largest proportion of munitions load and the balance is distributed as equitably as possible. The Commissioners wish to express their appreciation of the splendid spirit shown by the customers of the System in their full co-operation with them recognizing clearly that the shortage is a consequence of the abnormal circumstances due to the war.

<b>Capital</b>	By-Law No. 7875 authorizing a further issue of \$736,-
<b>Requirements</b>	000.00 debentures for the System's purposes maturing
	1937, was passed by the City Council and approved
	by the Ontario Railway and Municipal Board during the year.

The financial position during the war is such that it is difficult to dispose of municipal debenture issues to advantage, apart from which it is the duty of all to limit capital expenditure to the utmost possible extent. The Commissioners have had to make a considerable outlay during the year particularly in connection with the large munitions contract referred to in the General Manager's Report, but have borne in mind the importance of making only such additions to the System's plant as were necessary for safety and proper service.

<b>Fire at</b>	On the night of September 27th, the Head Office of
<b>Head Office</b>	the System at 226-8 Yonge Street was visited by a
	fire which destroyed the contents of the basement and
	ground floor, and damaged the contents of the second floor. Fortunately the more important records of the Accounting Department were saved so that the disorganization was not as great as might have been expected, and by considerable overtime work on the part of the staff it was found possible to resume billing at a comparatively early date. Temporary premises were secured which enabled the service to the public to continue with little interruption. The financial loss was covered by insurance. This incident emphasises the desirability of improved quarters for the System's records and staff, a matter which the Commissioners have had in mind for some time, but which has been delayed on account of war conditions.

<b>Increased</b>	Construction has proceeded on the new line of the
<b>Transmission</b>	Hydro-Electric Power Commission from Dundas to
<b>Line Facilities</b>	Toronto. During the year a right-of-way was purchased within the City limits. This line when completed will afford increased security against interruptions.

**Power Factor  
Charges**

The Power factor of the System, provision for the correction of which has been unavoidably delayed owing to the financial situation caused by the war, fell below the mark during the year, and a heavy power factor penalty was incurred. This is a matter difficult to explain without recourse to technicalities, but the condition may in a few words be said to result most generally from customers having apparatus of greater capacity than they require. The System's contracts with its customers provide an extra charge for low power factor, and the necessity of observing the Hydro principle of supply at cost without discrimination, as well as the power shortage, calling as it does for the adoption of every possible economy, has obliged your Commissioners to insist on the power factor clause in the System's contracts being observed, since the use of current at low power factor unnecessarily absorbs the capacity of the generating plant and transmission lines, and is therefore equivalent to a waste of power.

**Interurban  
Electric Co.**

The purchase of the assets of the former Interurban Electric Co., which was noted in the Sixth Annual Report was completed during the year 1917, and the customers were transferred with a minimum of inconvenience to the lines of the System. The System, though under no obligation to do so, maintained a 60 cycle supply for some months after taking over the assets in question. This involved considerable expense, but it was felt that a sudden discontinuance of the 60 cycle supply would result in undue hardship to a number of customers since it would mean that to the expense of replacing their apparatus, there would have been added the inconvenience of being without service until such time as the change could be effected.

**Toronto and  
Niagara Power  
Company**

In view of its relation to the present and future interests of the Toronto Hydro-Electric System, your Commissioners wish to call attention to a matter of great importance viz., the question of whether the charter of the Toronto and Niagara Power Co., can be utilized to enable the Toronto Electric Light Co., to maintain its poles in the streets of the City of Toronto, or to serve as a basis for establishing a new distribution system without the City's consent. The charter of this Company was granted by special Act of the Parliament of Canada, in 1902 and if it can take over the poles and wires of the Toronto Electric Light Co., it will mean not only that the City has lost control of its streets to a Company with unrestricted and perpetual powers, but that it has lost also its terminable rights under the agreement with the Toronto Electric

Light Co., to purchase the assets of that Company in 1919, and to prevent the amalgamation of that Company with any other. Your Commissioners visited Ottawa with the Hydro delegation early in the present year and made a special appeal to the Government to safe-guard the rights of the City in this matter.

**Military Service Act** In common with all other business institutions, the System has lost during the year, the services of certain members of its staff due to the enforcement of the Military Service Act. Owing, however, to the fact that most of the System's original employees liable for Military Service had already volunteered, and the policy which had been followed wherever possible of engaging only those unsuited for Military Service, (giving special preference to returned soldiers), the number of men subject to the draft amounted to a small percentage of the whole.

**Patriotic Expenditures** Substantial outlays have again been necessitated during the past year by way of allowances to employees on active service and their dependents.

**Conclusion** For the active support rendered by the Corporation Council and by the citizens at large during the year, the Commissioners are very grateful. In conclusion they desire to express their appreciation of the efficient services of the General Manager, and of a loyal and faithful staff.

Respectfully submitted by,

THE BOARD OF COMMISSIONERS,

P. W. ELLIS,  
*Chairman*

T. L. CHURCH,  
*Mayor*

R. G. BLACK,  
*Commissioner*



## CERTIFICATE OF AUDITORS

---

Toronto, April 29th, 1918.

*To the Commissioners of  
The Toronto Hydro-Electric System :—*

We have audited the books and accounts of the Toronto Hydro-Electric System, for the year ended December 31st, 1917, and certify that the attached Balance Sheet is properly drawn up, and, in our opinion, shows the true financial condition of the System as at December 31st, 1917.

We have examined the Accounts Receivable and are satisfied that provision has been made for all doubtful accounts. We have verified the cash balances.

(Signed) WALTER STERLING	}	<i>Auditors.</i>
(Signed) W. A. TOLLEY, F.S.A.A. (Eng.) <i>Chartered Accountant.</i>		

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHOWING NET INCOME

### Charges

To Cost of Electric Current.....	\$684,470.50
To Expenses of Operation and Management Including Repairs, Maintenance and accrued Charges, Provision for Pro- portion of Special Depreciation of Leasehold Buildings and Improvements (\$7,765.21) and Reserve for Doubtful Accounts Receivable.....	609,552.46
	- \$1,294,022.96
To Net Income available for Fixed Charges Carried forward to Section II.....	755,360.02
	<u>\$2,049,382.98</u>

## SECTION II: SHOWING DIS-

To Interest.....	\$336,381.91
To Depreciation.....	258,174.17
To Sinking Funds:—	
Under City By-Law No. 5036	\$36,471.54
Under City By-Law No. 5918	34,255.92
Under City By-Law No. 6674	9,283.67
Under City By-Law No. 7176	13,262.38
Under City By-Law No. 7875	10,500.00
	\$103,773.51
To Redemption Funds:—	
Under City By-Laws No. 7584 and No. 7642.....	\$21,903.13
Under Agreement with Pro- vincial Hydro-Electric Power Commission re sup- ply outside City.....	660.24
	\$126,336.88
To Net Income carried to Surplus Account.	34,467.06
	<u>\$755,360.02</u>



# Electric System for Year ended 31st December, 1917

## FROM OPERATIONS OF YEAR

<u>Income</u>	
By Sale of Current for:—	
Lighting .....	\$708,906.99
Power .....	788,395.96
Street Lighting .....	368,390.53
Exhibition .....	18,810.89
Bulk Supply and other Municipalities ..	92,267.63
	<hr/>
	\$1,976,772.00
By Income from sundry other sources .....	72,610.98
	<hr/>
	<u>\$2,049,382.98</u>

## POSITION OF NET INCOME

By Net Income available for Fixed Charges brought forward from Section I .....	755,360.02
	<hr/>
	<u>\$ 755,360.02</u>

# Balance Sheet as at 31st December, 1917, of

## ASSETS

### Fixed Assets

Lands, Buildings, Transmission System, Substation Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department and Miscellaneous Equipment, Miscellaneous Construction and Equipment Expenditures and Exhibition Construction and Equipment . . . . .	\$8,351,294.75	
Leasehold Premises and Improvements . . . . .	77,120.72	
	<u>\$8,428,415.47</u>	
Debenture Discount and Expenses . . . . .	599,188.25	\$9,027,603.72

NOTE: (Provision for writing off Debenture Discount and Expenses at the maturity of the respective debenture issues is secured by the annual charges against the earnings in respect of Sinking Fund).

### Current Assets

Stores on Hand and Apparatus on Loan, less reserve for contingencies . . . . .	\$795,422.03	
Accounts Receivable (including orders in progress) less Reserve for estimated losses (\$34,778.86) . . . . .	485,801.94	
Cash on Hand, less Bank Overdraft of \$2,685.14 . . . . .	2,222.18	
	<u>\$1,283,446.15</u>	
Deferred charges to future operations . . . . .		6,480.70

\$10,317,530.57

# the City of Toronto Hydro-Electric System

## LIABILITIES

### Capital Account

Corporation of City of Toronto:—

Sinking Fund Debentures:

By-Law No. 5036, Cash Advanced....	\$2,240,124.55	
Debenture Discount and Expenses....	509,875.45	\$2,750,000.00
By-Law No. 5918, Cash Advanced....	\$1,816,774.89	
Debenture Discount and Expenses....	383,225.11	\$2,200,000.00
By-Law No. 6674, Cash Advanced....	\$641,335.00	
Debenture Discount and Expenses....	58,665.00	\$700,000.00
By-Law No. 7176, Cash Advanced....	\$906,700.00	
Debenture Discount and Expenses....	93,300.00	

Instalment Debentures: \$1,000,000.00

By-Laws Nos. 7584 and 7642, Cash Advanced.....	\$1,243,469.76
Debenture Discount and Expenses....	4,530.24

\$1,248,000.00

### Deduct

Amount redeemed to date under terms of By-Law.....	\$21,368.92	\$1,226,631.08
---	-------------	----------------

Total Bonded Debt..... \$7,876,631.08

Less funds in City Treasurer's hands  
for redemption..... \$630,553.40

Net Bonded Debt..... \$7,246,077.68

Loan from City of Toronto..... \$100,000.00

\*Advances from Bank of Montreal.... \$550,000.00

Interest thereon accrued to date..... 7,444.22 \$557,444.22

Total Liabilities on Capital Account..... \$7,903,521.90

### Current Liabilities

Corporation of City of Toronto:—

Interest due and accrued to date....	\$167,915.75
Sinking Fund Instalments due.....	47,518.30
Sinking Fund Instalments accrued....	22,877.65
	<u>\$238,311.70</u>

Accounts Payable and Accrued Charges 395,254.78

Total Current Liabilities..... \$633,566.48

### Reserves

For Depreciation of General Assets.....	\$948,148.82	
For Depreciation of Leasehold Property...	50,240.98	
For Workmen's Compens. and Pub. Liab'y.	12,342.10	
For Sinking Fund.....	630,553.40	
For Redemption of Serial Debentures....	43,087.59	
For Contingencies.....	20,250.00	\$1,704,622.89
Surplus.....		<u>75,819.30</u>

\$10,317,530.57

\*NOTE: By-Law No. 7875 Instalment Debentures unnegotiated \$736,000.00 but expenditure on Capital A C authorized and incurred under this By-Law has been temporarily financed by advances from Bank of Montreal and the City.

Surplus as at 31st December, 1917, of

To Amount written off Loaned Apparatus.....	\$1,788.21
To Reserve for Contingencies.....	20,250.00
To Balance Carried Forward.....	75,819.30
	<hr/>
	\$97,857.51

## the City of Toronto Hydro-Electric System

By Balance Brought Forward . . . . .	\$63,390.45
By Net Income from Operations of year . . .	34,467.06
	<hr/>
	\$97,857.51





IMPROVED DOWN TOWN. *500 Watt Gas Filled*



— FIVE LIGHT CLUSTER *100 watt per lamp* —



STANDARD OVERHEAD *(Concrete pole)*



LOCAL IMPROVEMENT PLAN. — UNDERGROUND



UNIVERSITY AVE. (Concrete pole) *250 watt Gas Filled*



226-8 Yonge St.,  
Toronto,  
14th May, 1918.

## General Manager's Annual Report

*The Toronto Electric Commissioners :*

GENTLEMEN:

Herewith I beg to report on the operations of the Toronto Hydro-Electric System for the year 1917,—the seventh year of its existence.

The year's working shows a nett surplus of \$34,500.00 (approximately) after providing for Interest charges on all Capital expended, Sinking Fund to retire all Debentures at maturity and, in addition, Depreciation sufficient to replace all the plant and other assets at the end of their useful life. Thus the same conservative practice adopted during recent years has been continued.

### Comparison with Year 1916

The following comparison with the results obtained during the year 1916 may be of interest. (The nearest round figures are taken in each case).

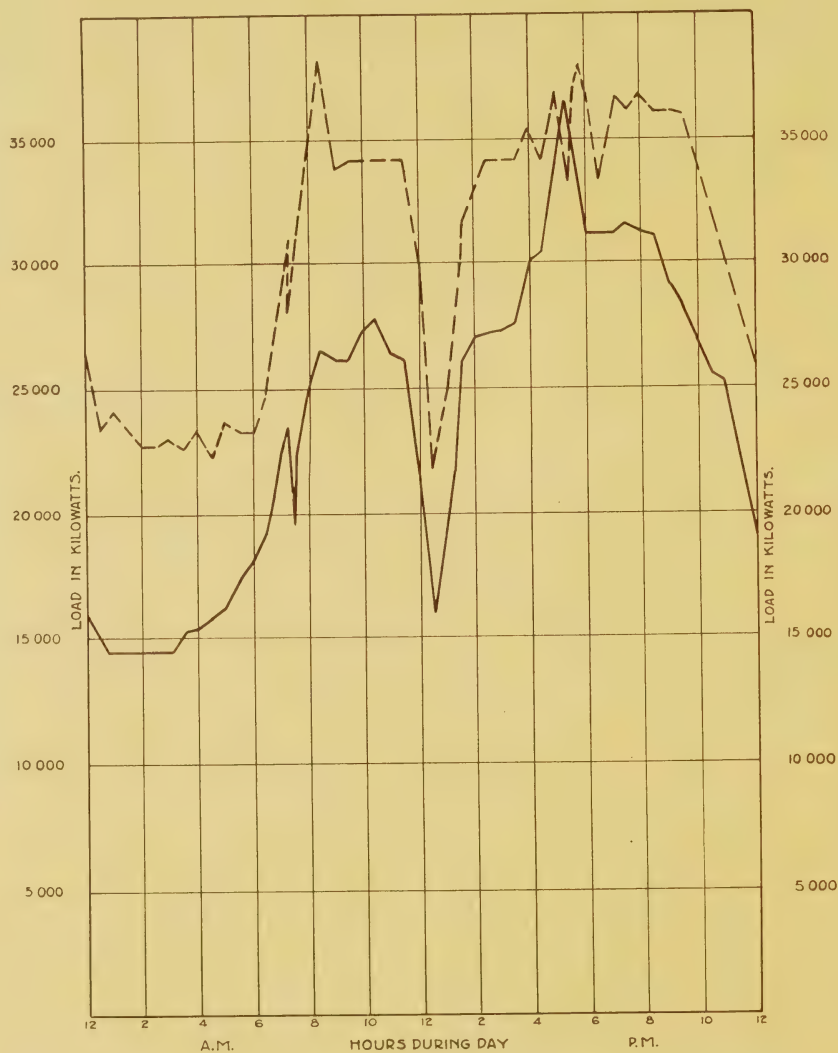
Increased Income.....	\$343,200.00 equal to over 20%
Increased Operating Costs.....	\$ 66,600.00 equal to over 12¼%.
Increased Cost of Power Purchased.....	\$155,300.00 equal to 29%.
Increase in the K.W. Hrs. Sold....	32¾ millions, equal to over 23%.

From these figures it will be seen that the Revenue has increased at a much more rapid rate than the Operating cost, in spite of a lower Revenue per K.W.-Hr. sold.

That these results have been obtained without any increase in rates, in spite of the very greatly increased cost of all stores and other supplies purchased coupled with a substantial increase in wages paid to the employees of the System, may be regarded as satisfactory.

### Growth of the Business

The two outstanding features of the Year's operations are the rapid expansion of the business up to October, and the power shortage which then developed, following which new business was of necessity refused. The growth, however, up to October was such that the increase for the year was one of the largest in the history of the enterprise.



TYPICAL DECEMBER LOAD CURVES SHOWING THE  
EFFECT OF POWER SHORTAGE IN 1917 AS COMPARED  
WITH 1916.

1916 SHOWN THUS ———  
1917 SHOWN THUS - - - -

TORONTO HYDRO ELECTRIC SYSTEM.  
1917 REPORT.

The largest consumer connected was the British Forgings Limited,—a subsidiary of The Imperial Munitions Board where electric furnaces are installed for melting scrap steel which is made into shell cases, the forging being also done on the premises.

The necessary extensions to the System were carried out in record time, partly by contracts and partly by direct labour. The order to go ahead was not received until about the end of January and the supply asked for and made available on May 1st.

The size of this job may be more easily gauged when it is realized that the expenditure to give the service reaches close to half a million dollars. Material had to be purchased and quick deliveries obtained, (a difficult proposition in these days). Climatic conditions at that period of the year are against rapid work,—particularly duct work underground in the streets.

The work involved among other things the laying of 322,000 duct feet of underground ducts, and the stringing of 137,300 feet of overhead lines, a large portion of which was on new poles. The fact that this work was economically and efficiently carried out in such a short time reflects great credit on those engaged in the work.

#### **Power Shortage**

Reverting to the power shortage which was (and is) a most serious matter, thanks to the splendid co-operation of the vast majority of the System's consumers, coupled with the immediate stoppage of new business, the period of heavy load was successfully gone through without the drastic curtailment of the service which appears to have been necessary in some places also affected by the power shortage. The effect of the power shortage on the winter peak is shown graphically by the curves reproduced on page 18. Since then, from time to time, due to different causes, there has on occasion been a shortage of power. When voluntary efforts did not give sufficient reduction to meet the situation, it became necessary to switch off those feeders not supplying munitions plants. Where the duration and magnitude of a possible shortage are unknown, it is impossible to make a predetermined arrangement sufficiently elastic to cover any situation which may arise. A knowledge of the difficulties experienced and the results obtained would, it may safely be stated, prove sufficient to convince any competent and unprejudiced party of the suitability of the arrangements made.

The hearty thanks of all users of power as well as those assisting in the supply are due to every consumer who has curtailed his supply in order to meet the demands of munitions plants and other war supplies.

**Fire at Head Office** Another handicap in the work of the System during the latter months of the year was the fire which occurred from an unknown cause in the basement of the Head Offices at about 10 p.m., on September 27th. The fire resulted in the gutting of the basement and first floor, the flooding of the vaults, with some damage to the upper floors from water and smoke.

Fortunately, no essential records were completely destroyed, and by loyal co-operation of the Staff who cheerfully worked early and late, the inconvenience to consumers was greatly minimized, if not entirely eliminated.

The loss was covered by insurance, which was adjusted in a fair and satisfactory way by the different Companies carrying the insurance. A number of papers and records were destroyed or badly damaged, the loss of which may be felt for some time to come.

The premises, which are leased for a comparatively short term, have, due to the type of construction, always been regarded as a source of danger from fire, so much so that, in the splitting up of the office Staff, the Engineering Department with its records were moved to more fireproof premises at considerable inconvenience.

Permanent offices would have been available some time ago had there not been the delay by the City in dealing with Application for Sanction No. 5 which included provision for proper buildings. When the Sanction was authorized conditions had changed and prices advanced to such an extent that the Commissioners did not feel justified in proceeding with the scheme, in spite of the difficulty, inefficiency, and risk run by a continuation of existing conditions.

**General Extensions** Apart from the necessary work to supply The British Forgings Limited, there has been very little work of special magnitude in hand. The more important jobs included the continuation of the extension of Duncan St. and Junction Sub-stations,—an external view of the former being shown on page 21. The work on these sub-stations is still proceeding, though slowly, but it is hoped that the same may be ready for next winter's load and relieve the conditions which now exist due to the rapid growth





DUNCAN ST. SUB-STATION.  
(Showing Extended Building)



DUNCAN ST. SUB-STATION.  
(Original Building)



of the business in these districts, and the delays in the completion of the work.

Generally speaking the new business obtained has necessitated a considerable amount of consolidation and strengthening of the System in the endeavour to maintain reliable service. All Capital Expenditure not of immediate necessity, however, has been stopped since the outbreak of the war.

The work of incorporating the Interurban Electric Company's business in the System has been carried on gradually, but due to the shortage of labor was not finally completed during the year. A considerable portion of the old construction was condemned and scrapped, which will be appreciated by everyone interested in the appearance and safety of the streets.

**Insurance** It was decided early in the year to carry the System's Insurance in connection with the Workmen's Compensation Act, and later this policy was extended to include Public Liability Insurance. A fund has been set up for this purpose to which is credited a sum based on the cost of carrying the insurance if placed through an Insurance Company. All expenses have been debited to the fund, which shows a substantial credit balance at the end of the year. The fund is credited with interest on a 5% basis.

**Accident Prevention** A special sub-department has been started to deal with Accident Prevention along co-operative educational lines, and a considerable amount of work has been done, but the period is not sufficiently long to form any definite conclusions. Although there have been many encouraging features in connection with the work, sufficient general interest seems difficult to arouse and maintain. A contributory cause may be the apparent tendency in some cases to use the Committee as an instrument to exploit fads or ventilate grievances—which, where not imaginary, could be more efficiently, promptly and better dealt with in a regular way.

**Power Factor Correction** The question of Power Factor correction which has been under consideration for some years, and postponed from time to time due to financial conditions arising out of the war, became acute during the year, particularly during the Summer months, when a heavy Power Factor penalty was incurred by the System. The power shortage, necessitating conservation of power in every possible way, still further accentuated the situation, and from



Power Factor correction being only a desirable object it became an imperative necessity. After negotiation the Hydro-Electric Power Commission of Ontario arranged to purchase, and are now installing some synchronous apparatus which will tend to help conserve power, and should also assist the power factor and voltage of the System's supply. Further work will no doubt be necessary as soon as conditions permit. Other phases of this question are dealt with in the Commissioners' report and consequently omitted herein.

**Appliance Department**            The Appliance Department, in spite of the interference caused by the fire and the power shortage has had a very successful year, showing a satisfactory advance over 1916, the number of articles sold being close to 20,000.

The results obtained at the new Branch Store (located in the sub-station building at Carlaw Ave. and Gerrard St.) are still encouraging, and have, I consider, justified the undertaking.

The Appliance Department co-operated in the Toronto Household Exhibition held in the Arena in April, and also at the Canadian National Exhibition in August-September, attractive displays and demonstrations along educational lines being given in connection with both.

**Honor Roll**                The total number of employees with the Colors is shown in the Honor Roll on pages 25 to 29.

It is with regret that we record additional casualties during the year as follows:—

Killed in action or missing, two.

Wounded, seven.

Six men, all physically incapacitated, have been honorably discharged during the year.

The Commissioners have continued the grants as before to the dependents of employees with the Colors, the cost being debited to the year's operations.

**Details of Financial Statement**            In conclusion a word of explanation is perhaps desirable in connection with the item of Stores, as, on the face of it, the same appears heavy when compared with preceding years. Everyone knows the difficulty of obtaining deliveries on time under present conditions, and the System has the added difficulty of getting work done and goods delivered in regular sequence. The practical result of this difficulty largely accounts

for the increase, materials being delivered and taken into stock rather than holding up shipment until other work was caught up. Other contributory causes are increased prices, and in certain instances increased stocks of articles difficult to obtain and required quickly in order to give service or maintain the same.

Attention is drawn to the fact that Interest and Sinking Fund due to the City in respect of 1917 though provided for were not actually paid over. This is due to the non-payment of the System's accounts by certain departments of the City, which is also reflected in the item Accounts Receivable. In this last mentioned item was another large account which, though not in dispute was not actually settled before the end of the year, and therefore appears in the figures.

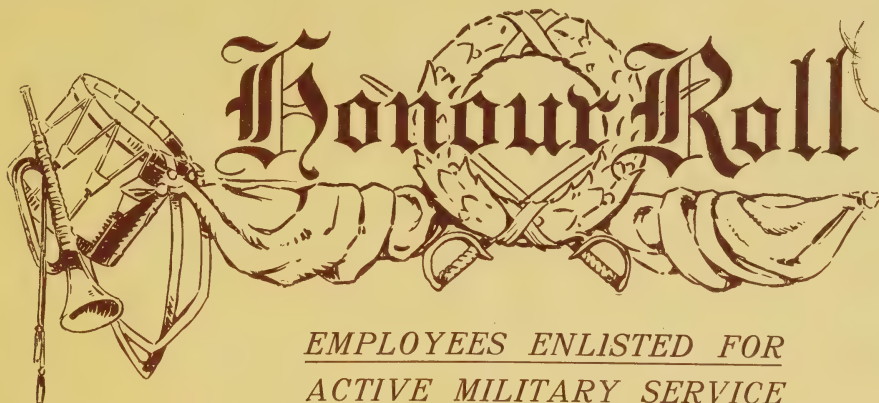
It is with great pleasure that I again record my appreciation of the very valuable services rendered by the Staff, to whose efforts, combined with the splendid support of the Consumers and the Public, is very largely due the measure of success attained in the past. Our thanks are also due to those officials of the City whose co-operation has been of the greatest value to the System.

I am, Gentlemen,

Your obedient servant,

H. H. COUZENS,

*General Manager*



## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

### KILLED IN ACTION

Name	Regiment or Battalion	Rank
H. J. COSH	Princess Patricia's	Private
H. BAND	15th Battalion	Sergeant
J. DEWAR	15th Battalion	Private
*J. DUGUID	Gordon Highlanders	Private
R. FLAXMAN	15th Battalion	Private
WM. WORDEN	39th Battalion	Private
J. E. WOOLEY	19th Battalion	Private
A. H. CARSWELL	134th Battalion	Sgt.-Major
T. LEE	95th Battalion	Private
A. CHRISTIE	124th Battalion	Private
A. A. THORNE	Princess Patricia's	Private

### WOUNDED OR INCAPACITATED

Name	Regiment or Battalion	Rank	Cause
R. J. WHITEMAN	3rd Batt.	Private	Wounded
H. J. MacTAVISH	19th Div. Am.	Lieut.	Wounded
J. F. M. NIXON	3rd Batt.	Sergeant	Wounded
W. GRAHAM	19th Batt.	Private	Wounded
D. LAIDLAW	92nd Batt.	Private	Wounded
J. E. RAMSAY	166th Batt.	Sergeant	Wounded
T. H. STEWART	92nd Batt.	Corporal	Wounded
J. M. KERR	134th Batt.	Private	Wounded
C. H. W. NOBLE	Army Ser. Co.	Private	Shell Shock
R. ROBERTSON	134th Batt.	Private	Wounded
J. GILSON	20th Batt.	Private	Wounded
A. HEARD	20th Batt.	Private	Illness

### PRISONERS OF WAR

Name	Regiment or Battalion	Rank
J. CHADWICK	15th Battalion	L.-Corporal
E. HYDE	3rd. Battalion	Private
E. RODGERS	15th Battalion	Sergeant
F. HOUSE	15th Battalion	L.-Corporal

\*British Army Reservist.



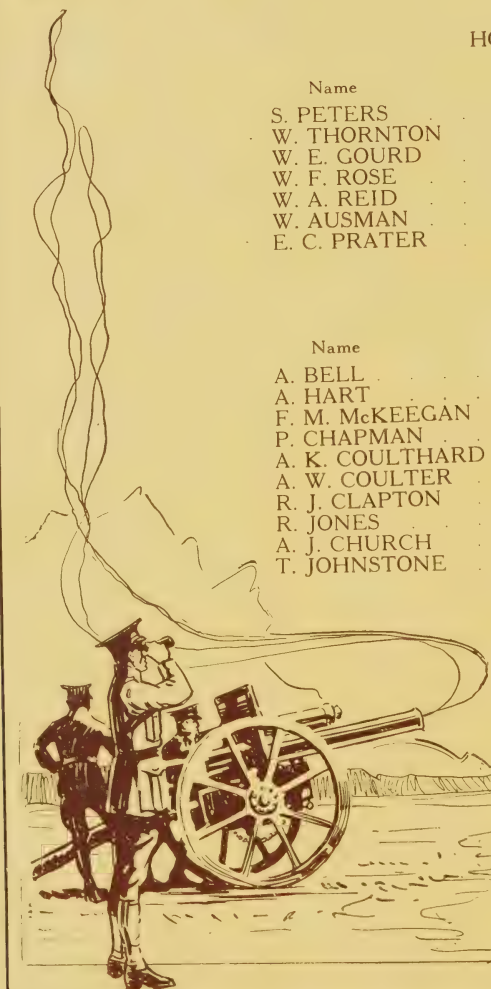


## HONORABLY DISCHARGED

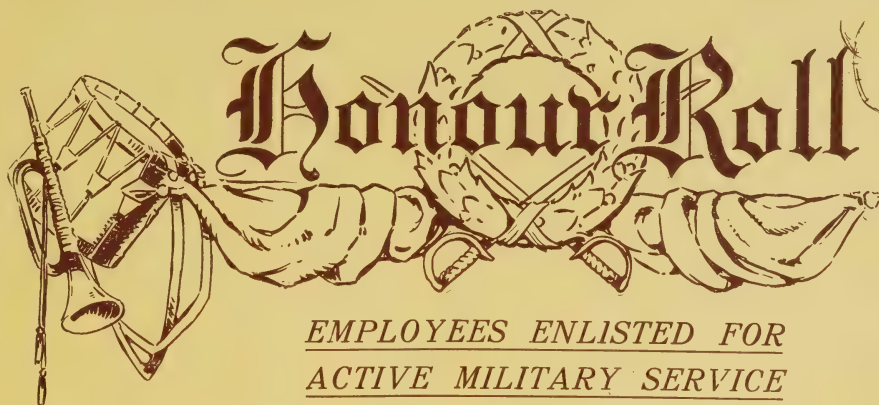
Name	Regiment or Battalion	Rank	Cause
S. PETERS	3rd Battalion	Corporal	Wounded
W. THORNTON	75th Battalion	Private	Wounded
W. E. GOURD	169th Battalion	Private	Gassed
W. F. ROSE	166th Battalion	Private	Illness
W. A. REID	1st Div. Cyclists	Private	Shell Shock
W. AUSMAN	134th Battalion	Private	Illness
E. C. PRATER	Army Medical Corps	Private	Illness

## ON ACTIVE SERVICE

Name	Regiment or Battalion	Rank
A. BELL	A.M.C. Field Ambulance	Private
A. HART	15th Battalion	Private
F. M. McKEEGAN	Army Medical Corps	Private
P. CHAPMAN	75th Battalion	Private
A. K. COULTHARD	3rd Batt. (Military Medal)	Lieutenant
A. W. COULTER	1st Div. Machine Gun Co.	Lieutenant
R. J. CLAPTON	3rd Battalion	Sergeant
R. JONES	3rd Battalion	Private
A. J. CHURCH	1st Div. Sig. Co.	Private
T. JOHNSTONE	Army Ser. Co.	Private
A. HUGHES	4th Brigade	Private
J.A.FOLLANSBEE	19th Batt.	Sergeant
F. H. CANTLON	Casualty Depot, England	Sgt.-Inst.
H.CUNNINGHAM	Army Med. Corps	Private
J. C. MANSON	Eng. Wireless Signals	Lieutenant
A. G. KEAN	Army Ser. Co.	Corporal
E. MEESON	Army Ser. Co.	Corporal
A. J. McFADDEN	1st Batt.	Private
W. B. COWAN	2nd Div. Cyc.	Lieutenant
J. A. TILSON	Eng. Ry. Con.	Sapper
S. H. MUNRO	C.F.A.	Lieutenant
G. W. HARRIS	36th Batt.	Private







## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

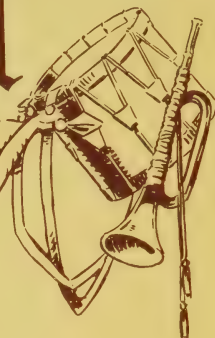
ON ACTIVE SERVICE—*Continued*

Name	Regiment or Battalion	Rank
T. W. KIRKPATRICK	Artillery, 26th Battery	Gunner
H. JEX	Army Ser. Corps.	Private
R. J. PEARCE	4th Bat., 1st Brig.	Private
T. SIMPSON	92nd Battalion	Corporal
A. J. WRIGHT	Royal Flying Corps (Military Medal)	Lieutenant
J. CURRIE	75th Battalion	Private
W. A. STEEL	2nd Military Div. Headquarters Signal Staff	Ser.-Inst.
C. MILLER	127th Battalion	Private
A. FERGUSON	92nd Battalion	Private
E. WILSON	92nd Battalion	Private
J. JACKSON	R.C.H.A. 3rd Res. Bat.	Bombardier
R. BAKER	58th Battalion	Private
R. MEESON	Mechanical Transport	Lieutenant
R. SANDFORD	92nd Battalion	Sgt.-Major
W. H. RUSSELL	3rd Div. Cyclists	Private
W. ROBERTSON	No. 4 Can. Sig. Corps	Private
J. E. WITHERS	C.F.A. 2nd Res. Bat.	Sergeant
W. G. CAMBRIDGE	92nd Battalion	Private
W. GIBSON	83rd Battalion	Sergeant
C. A. OLIES	Can Eng., Signal Div.	Sapper
G. DENNISTON	C.F.A. 45th Battery	Private
M. WHITE	58th Battalion	Sergeant
G. FAIRWEATHER	92nd Battalion	Private
H. A. LAWSON	C.F.A. 1st Brig., 4th Bty	Signaller
F. C. BARKER	C.F.A. 9th Brigade	Lieutenant
H. B. KIMBER	Army Medical Corps	Corporal
A. G. EVANS	75th Battalion	Private
H. E. LOVE	95th Battalion	Co. Q.M. S.
G. D. DUDLEY	35th Battalion	Private
H. R. BRUCE	166th Battalion	Sergeant
A. GREEN	Army Service Corps	Driver
L. J. MERRETT	123rd Battalion	L.-Corporal
L. A. DICKSON	Army Service Corps	Private
P. ACKROYD	R.C.H.A. "C" Battery	Sergeant
W. H. O'BRIEN	123rd Battalion	Sergeant
H. E. EVANS	C.F.A. 53rd Battery	Corporal
W. G. BREEN	126th Battalion	Private
S. J. SMITH	124th Battalion	Private





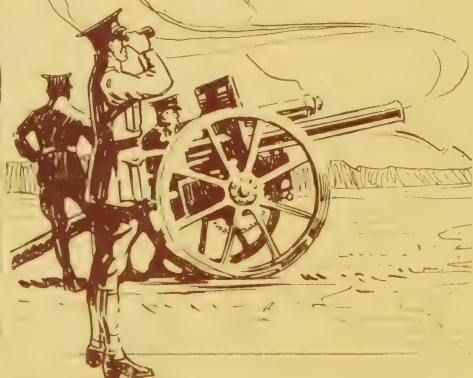
# Honour Roll



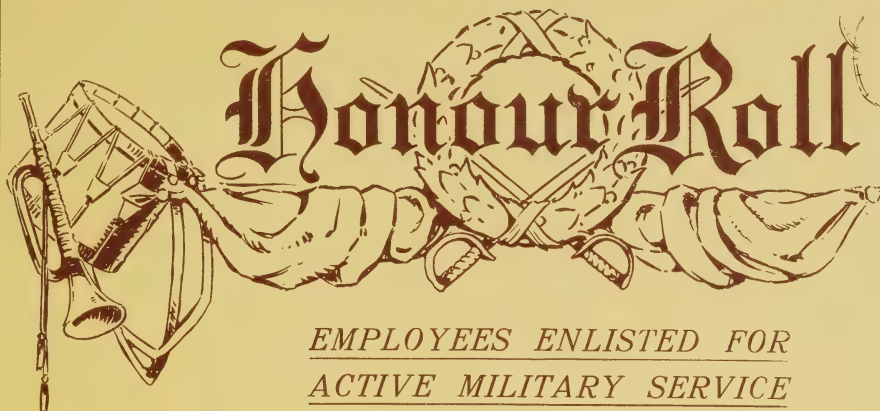
## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

ON ACTIVE SERVICE - *Continued*

Name	Regiment or Battalion	Rank
J. B. WILSON	C.F.A. 34th Battery	Gunner
F. W. FINCH	124th Battalion	Private
A. J. LAMBERT	C.F.A. 34th Battery	Gunner
J. COWAN	134th Battalion	Private
J. WALKER	134th Battalion	Private
R. C. COULTER	126th Battalion	Private
W. J. MOTTERSHEAD	169th Battalion	Sergeant
W. A. RUMSBY	166th Battalion	L.-Corporal
D. B. CLARK	Engineers	Sapper
E. C. KIRKWOOD	Army Service Corps	Private
G. LEE	198th Battalion	Bugler
W. C. WARE	169th Battalion	Private
J. SMITH	Engineers B. I. Co.	L.-Corporal
W. N. TAYLOR	Army Service Corps	Private
B. U. HARGREAVES	169th Battalion	Private
S. BECKETT	Engineers, 2nd Field Co.	Sapper
W. W. SIMMONS	44th Reg. C.E.F.	Private
H. C. STACEY	124th Battalion	Private
W. J. HAMILTON	136th Battalion	Private
F. W. JARVIS	127th Battalion	Private
J. FRAME	Army Service Corps	Private
V. O. BROOKS	180th Battalion	Private
E. MORGAN	166th Battalion	Private
A. JAMIESON	169th Battalion	Private
T. CLERK	216th Battalion	Corporal
R. S. FOWLER	R.C.H.A. "C" Battery	Sgt.-Maj.
A. H. GRANT	R.C.H.A. "C" Battery	Gun'r.
R. H. GRANT	C.F.A. 53rd Battery	Gun'r.
P. MALPAS	R.E.P.I. Co.	Pte.
F. LOMAS	204th Batt.	Pte.
M. MacKAY	204th Batt.	Pte.
J. A. WHYTE	204th Batt.	Co. Q.M.S.
R. RICHARDS	170th Batt.	Pte.
D. E. IRWIN	92nd Batt.	Pte.
J. H. FORD	198th Batt.	Pte.
W. G. BAKER	220th Batt.	Pte.







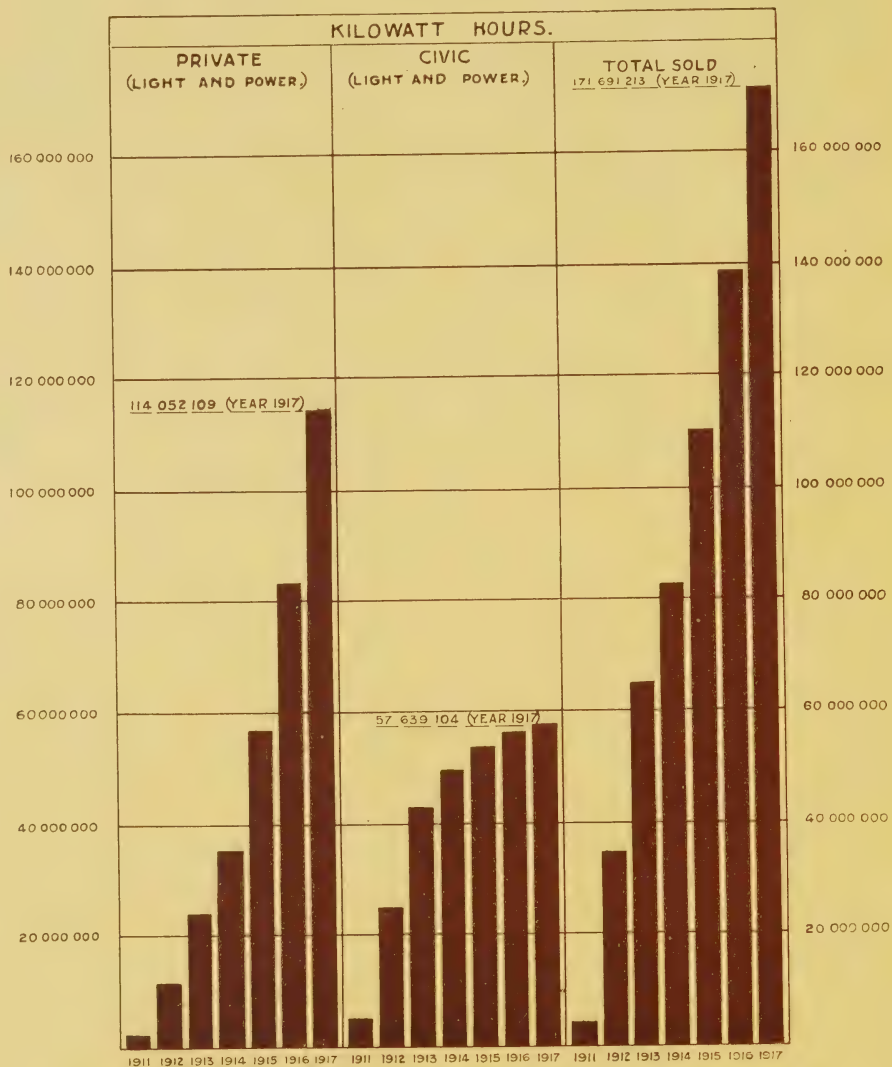
## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

ON ACTIVE SERVICE—*Continued*

Name	Regiment or Battalion	Rank
J. WRAY	208th Battalion	Private
F. A. STARR	R.C.H.A. "C" Battery	Gunner
R. LUND	4th Pioneer Battalion	Private
J. M. CARLISLE	Engineers 2nd Field Co.	Sapper
E. SECORD	Guides, Can. Ordnance	Guide
H. POOLE	201st Battalion	Private
W. P. CARLTON	220th Battalion	Private
WM. POINTON	No. 2 C.A.S. Corps	Captain
WM. CLARK	1st Con. Overseas Batt.	Private
JOHN PAYNE	238th Battalion	Private
G. L. GARRATT	Royal Flying Corps	{ Second Class Mechanic
H. A. RUSSELL	Royal Flying Corps	
J. E. DAY	Royal Flying Corps	
HAROLD POTTER	70th Battery, C.F.A.	Gunner
T. H. HODGINS	Can. Mounted Rifles	Corporal
SAMUEL BAIRD	Royal Can. Horse Artil.	Private
WM. J. RYAN	Royal Flying Corps	2nd Cl. Mec.
JOHN A. SIMPSON	Signalling Corps	Sapper
F. W. FIRTH	Royal Flying Corps	2nd Cl. Mec.
W. E. TOY	Royal Flying Corps	Private
R. A. CLARK	Canadian Engineers	Sapper
S. H. LOWER	Canadian Forestry	Private
G. L. LILLIE	Navy, H.M.C.S. Vimy	Engineer
S. L. PEER	71st Battery, "A" Brig.	Gunner
J. H. MOULD	Navy, H.M.P.V. No. 5	Stoker
R. G. MATTHEWS	Canadian Engineers	Lieutenant
N. MARTIN	C. E. F.	
T. CARNOCHAN	C. E. F.	
W. R. GREEN	C. E. F.	
H. RUSSELL	C. E. F.	
ROBERT FORREST	5th Platoon, "B" No. 2 Depot	Private
E. A. DALLEY	1st Tank Battalion	Private
CECIL H. DYE	69th Battery, C.F.A.	Private
N. V. CURZON	Royal Can. Dragoons	Private
N. LAVOIE	"A" Co., E.T.D.	Sapper
R. S. BELL	Canadian Engineers	Sapper

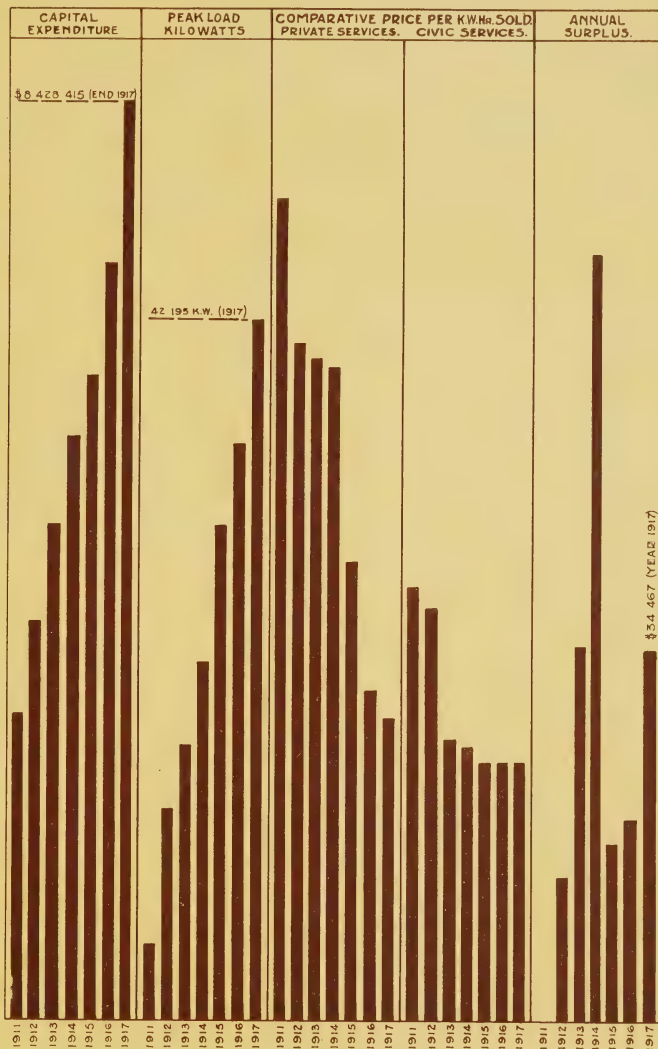


# SALE OF ELECTRICAL ENERGY



SALE OF ELECTRICAL ENERGY.

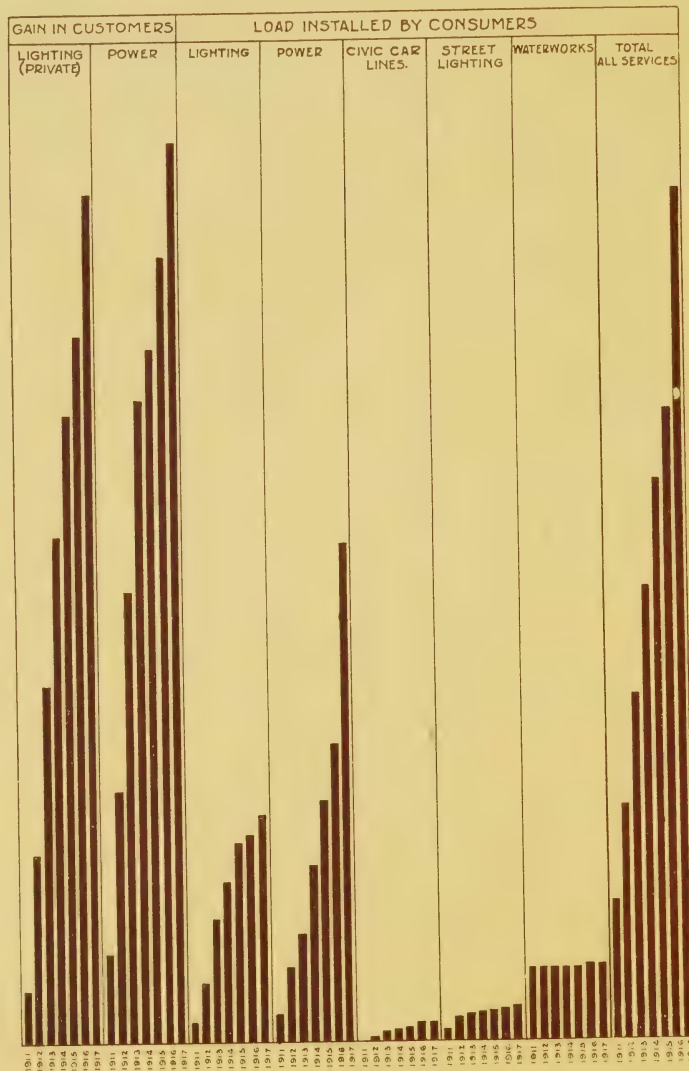
TORONTO HYDRO ELECTRIC SYSTEM.  
1917 REPORT.



CAPITAL EXPENDITURE, PEAK LOAD; REVENUE (PER K.W.Hr. SOLD) AND SURPLUS, YEAR BY YEAR.

NOTE: REDUCTION IN THE RATES CHARGED FOR ELECTRIC SERVICE WERE MADE AT THE BEGINNING OF THE YEAR 1915 AND ALSO 1916.

TORONTO HYDRO ELECTRIC SYSTEM.  
1917 REPORT.



GROWTH OF BUSINESS, YEAR BY YEAR.

SEPARATE SERVICES.

TORONTO HYDRO ELECTRIC SYSTEM.  
1917 REPORT.

## REVENUE FROM SALE OF ELECTRICAL ENERGY

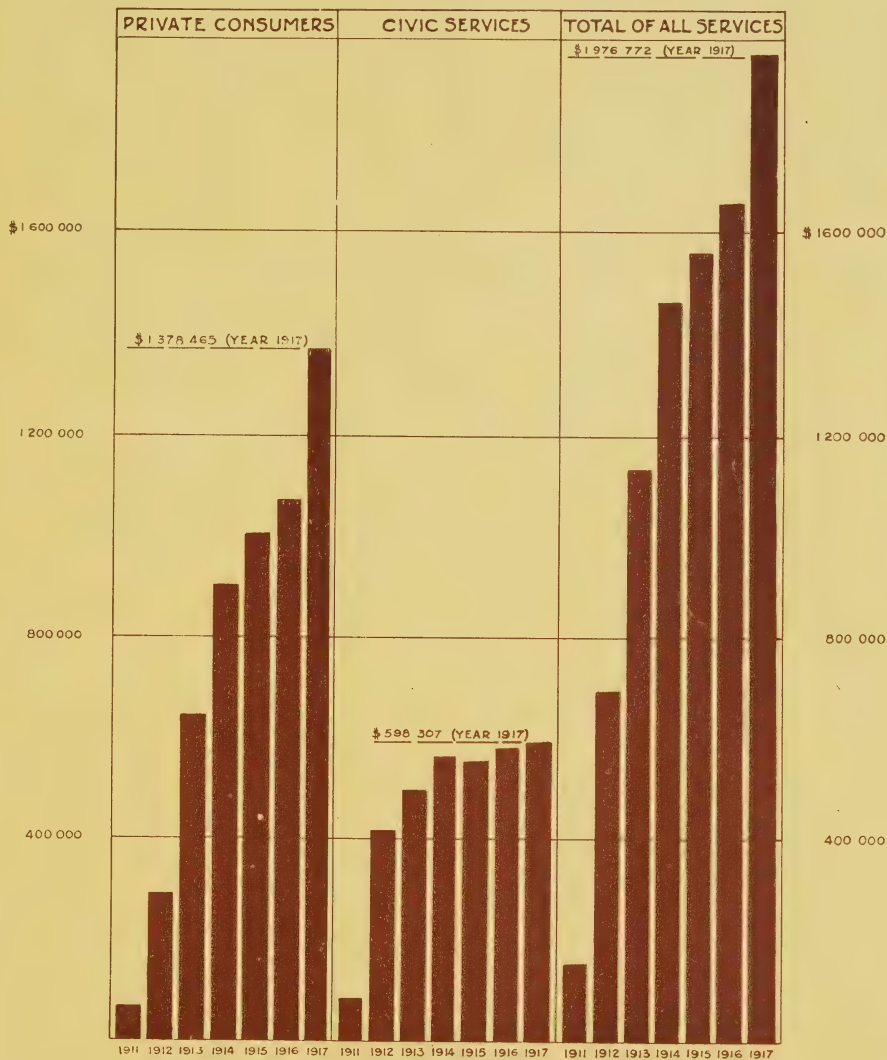


DIAGRAM SHOWING THE COMPARATIVE GROWTH OF  
THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES  
OF SERVICE, YEAR BY YEAR.

NOTE: REDUCTION IN THE RATES CHARGED  
FOR ELECTRIC SERVICE WERE MADE AT  
THE BEGINNING OF THE YEAR 1915 AND  
ALSO 1916.

TORONTO HYDRO ELECTRIC SYSTEM,  
1917 REPORT.











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Toronto Electric Commission

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# (The TORONTO HYDRO ELECTRIC SYSTEM)

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EIGHTH  
ANNUAL REPORT  
1918

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*With the compliments of  
The Commissioners*

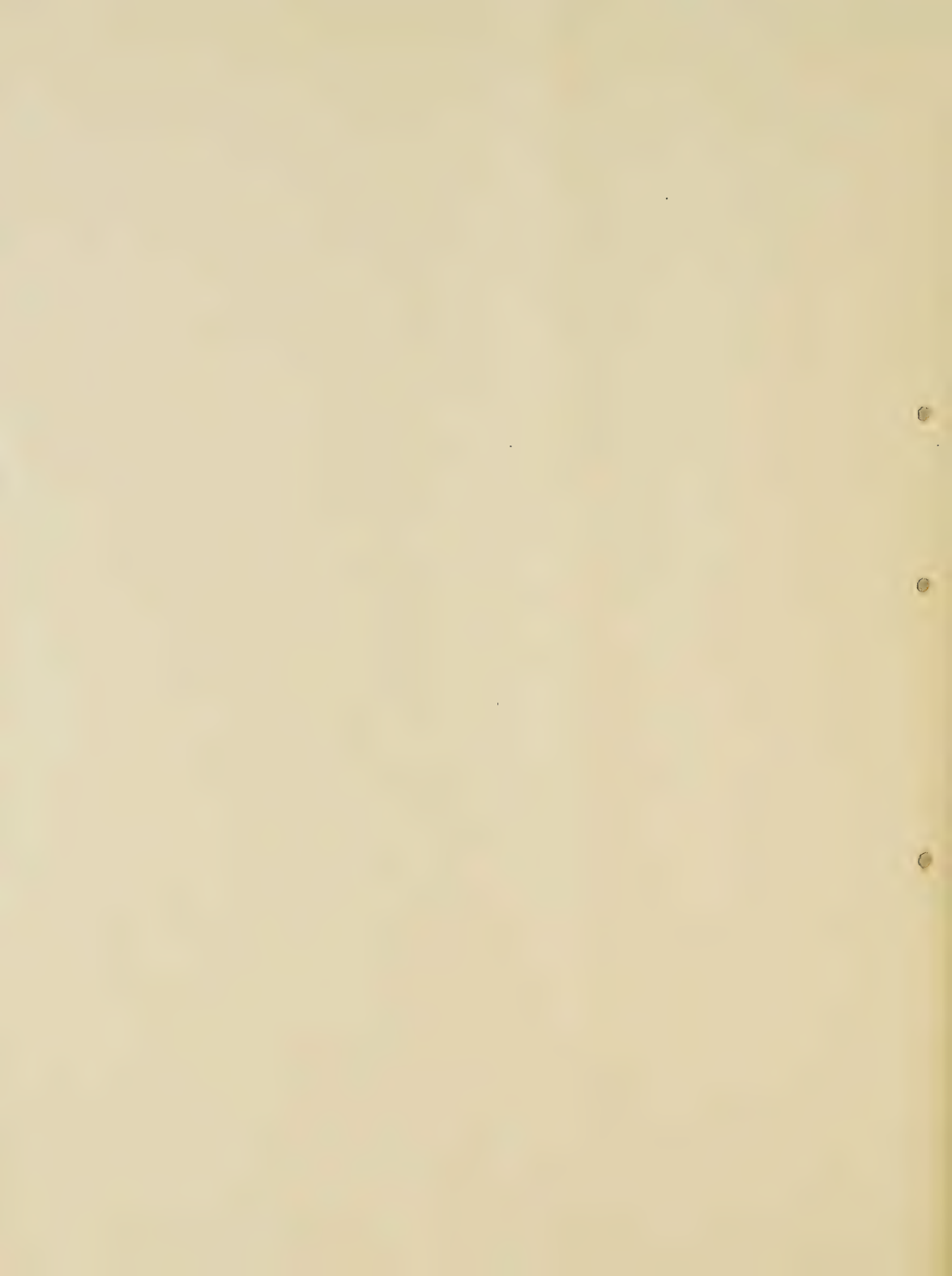




# THE TORONTO HYDRO-ELECTRIC SYSTEM



THE EIGHTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS  
1918



## Commissioners' Report

*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto.*

TORONTO

Gentlemen :—

Your Commissioners beg to submit their Eighth Annual Report, accompanied by the Revenue Account, the Balance Sheet, and certain subsidiary statements of the Toronto Hydro-Electric System for the year ended 31st December, 1918. The annexed Balance Sheet and the books and accounts of the System have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended hereto.

**Financial Position as at 31st December, 1918**      The operations for the year 1918 have resulted as follows :

The gross income amounted to the sum of .....	\$2,353,443.93
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of .....	1,485,613.19
Leaving a surplus of income on operating account for 1918 of \$	867,830.74
Interest, Depreciation and Sinking Funds for the year absorbed the sum of .....	846,163.75
Leaving a surplus of net income of .....	<u>\$ 21,666.99</u>

At this the close of slightly over seven complete years of operation during which time two general rate reductions have taken place, also a reduction in charges for Street Lighting, it may be of interest to point out that the enterprise has fully paid its way and earned a surplus of \$63,977.59. Not a dollar has been charged to Capital Account that should have been charged to Revenue. The System has earned Sinking Fund and funds for the redemption of serial debentures amounting, with accrued interest, to \$857,177.92, and since the maintenance of the System's plant has been paid for out of Revenue, and replacements have been provided for by the establishment of a depreciation reserve, it is evident that the

surplus and sinking funds together, amounting in all to \$921,155.51 constitute the net earnings of the enterprise over and above all operating, interest and depreciation charges for the period under consideration.

Had the enterprise been conducted as a commercial corporation with share capital instead of being charged with debenture capital subject to repayment, the net earnings for the year would have been shown at the amount of \$557,390.91, that being the sum of interest and sinking fund appropriations and the net surplus; or the equivalent of a dividend at the rate of approximately 7% upon the average amount of cash capital invested therein. This result is the more surprising in view of the very low rates charged.

Owing to the fact that no provision was made for furnishing the enterprise with any capital except that required for purely construction purposes, difficulty was experienced during the earlier years of the System's operations in promptly paying over to the City Treasurer the necessary funds to meet interest and sinking fund obligations. The reason for this is that in the operation of the System there will always be a large amount invested in stores on hand, in accounts receivable outstanding, and in sundry other directions. The funds so invested must either be obtained from the General Creditors, the accumulated depreciation reserves, from the accumulated surplus earnings, or by way of additional capital. Creditors, however, require to be paid promptly if satisfactory business is to be maintained. The policy of carrying on the System at cost for the benefit of consumers will prevent the accumulation of surplus earnings on a large scale. The depreciation reserves have by degrees grown to a sufficient extent to supply the working capital and this has made it possible to pay to the City Treasurer all interest and sinking fund charges and arrears of same.

**Capital Requirements** The Commissioners, bearing in mind the necessity of limiting capital expenditure during the year to the utmost possible extent, have avoided all construction work not immediately required for safety and proper service. In view of the necessity of completing important works designed to enable the System to cope with the heavy and increasing loads imposed upon it, a limited amount of extra capital was required. By-law No. 8052, authorizing the issue of \$650,000.00 debentures maturing in 1938, was passed by the City Council and approved by the Ontario Railway and Municipal Board during the year. As the Toronto System grows, further capital expenditure will be required. For every dollar so expended, a corresponding



revenue-producing asset will, however, be acquired. Since the year 1917 all debentures issued have been limited as to their term to the estimated wearing lifetime of the structures for the purchase or construction of which the proceeds of such debentures are required.

**Power Purchased** Power purchased from the Hydro-Electric Power Commission of Ontario during 1918 amounted to \$824,251.36 as compared with \$684,470.50 for the year 1917.

**Power Shortage** Up to the date of the signing of the Armistice, the heavy and urgent demands for power for munition purposes from the Hydro-Electric Power Commission of Ontario caused a shortage which seriously hampered the growth and development of the System. Strenuous efforts were made and large expenditures incurred by the Provincial Commission in endeavoring to obtain an additional supply of power, but such additional supply did not become available during the year 1918, and the situation was relieved only by the reduction of the requirements for munition works at the close of the year. The Commissioners wish to again express their appreciation of the splendid spirit shown by customers of the System in their full co-operation with them, recognizing clearly that the shortage was a consequence of the abnormal circumstances due to the war.

**Rates** During the year a very substantial reduction has been made in the rate for street lights. In accordance with Statutory requirements the Hydro-Electric Power Commission of Ontario makes an annual review of the accounts of the System to ensure that charges for municipal services are on a cost basis. Under the above procedure the System was required to pay to the City the sum of \$22,237.18 as a rebate on the 1917 street lighting account, and to reduce the rate for the year 1918 from \$8.00 to \$7.00 per lamp per year, which resulted in a saving to the City of approximately \$45,000 during the year 1918.

It has been stated that the average overall rate charged by the System is not as low as that enjoyed in other places. As a basis of comparison the use of an average overall figure is entirely fallacious, as the average charge per Kilowatt Hour for long hour consumers is in general low, while that for short hour consumers is comparatively high, and the average overall charge depends on the proportion of long hour consumers and short hour consumers respectively, which in turn depends on the

nature of the industries carried on in any particular community. With the above qualification in mind, it is nevertheless interesting to note that the average charge by the Toronto Hydro-Electric System per Kilowatt Hour for all power sold during the year 1918 was .994 cent.

**Service to Consumers** In the administration of the System your Commissioners, in addition to reducing the rates to the lowest point consistent with sound finance, have also borne in mind the necessity of satisfactory service. A large staff is held in readiness at every hour of the day and night to ensure that any interruption or breakdown resulting from fire, accident, or other causes shall receive prompt attention. In addition to the staff maintained for emergency work on the wires and cables of the System in the streets, there is also a staff of workmen whose duty it is to respond to calls from individual consumers whose supply is interrupted owing to causes arising within their own installations. Such causes are located and minor troubles remedied at all hours without charge.

The Commissioners have also followed a progressive policy in introducing Appliances, with a view to placing within reach of every citizen the various electrical devices for saving labor and increasing comfort that are developed from time to time.

**Labor Conditions** During the year the cost of living has continued at a high level, and the Commissioners, following the policy to which they have consistently adhered and which is dictated by a fair and generous consideration for the welfare of the employees of the System, granted substantial increases. By pursuing such a policy in regard to the wage scale and by a generous holiday allowance, they have greatly raised and improved the labor and social conditions of the System's workmen, who have in this way shared with the power and light consumers in the benefits of the undertaking.

**Progress during 1918** Satisfactory progress was made during the year 1918; the increase in the gross income over that of 1917 was 14.9%. The increase in the commercial income over that of 1918 was 24.7%. The commercial income for the year amounted to 78% of the total, as compared with 71.8% in 1917, 67.0% in 1916, 66.4% in 1915, 63.9 in 1914 and 59.05% in 1913. The support of the general public is therefore steadily and satisfactorily increasing, and the business arising from supplying its requirements represents each year an increasing propor-

tion of the total output. This is obviously a markedly satisfactory feature of the operations, indicating as it does, an increasing confidence on the part of the public at large. The following table shows other details of the progress of the System :

End of	Meters in Use	Street Lanterns in Use	Kilowatt Hours Sold	Connected Load H. P.	Peak Load H. P.
1912	13,858	33,824	35,176,548	46,296	17,198
1913	24,999	38,944	65,052,951	68,461	22,520
1914	33,976	40,596	82,927,015	90,162	28,753
1915	39,284	43,411	109,501,981	111,413	40,180
1916	44,013	45,212	139,003,756	125,840	47,165
1917	50,461	45,841	171,691,213	169,818	56,562
* 1918	53,598	29,527	230,413,561	184,930	60,154

\* Owing to the shortage of power during 1918 it was necessary to refrain from canvassing for new business and to curtail the street lighting.

#### **Residence Consumers' Accounts**

In view of the necessity of every possible economy, the Commissioners during the year authorized the adoption of the practice of rendering residence consumers' accounts every second month instead of monthly as formerly. It is believed that this change has not only resulted in a saving in the operation of the System, but is also an increased convenience to many consumers. Owing to the Banks having discontinued the arrangement by which payment of customers' accounts was accepted at a charge of three cents per account, it was necessary to make other arrangements, and payment of the System's accounts is now accepted at the various branch offices of the Dominion Express Company. The Express Company's charge for this service is five cents per account. The Commissioners have at the present time a branch store at the Corner of Carlaw Avenue and Gerrard Street, and have under consideration the establishment of a number of other branch stores throughout the City, which will facilitate payment of accounts while at the same time familiarizing consumers with the many labor-saving devices made available by the introduction of electricity into domestic use.

#### **Appointment of Mr. George Wright**

On July 1st Mr. R. G. Black, who was appointed as Commissioner by the Hydro-Electric Power Commission of Ontario in September, 1913, tendered his resignation. The Commissioners' relations with Mr. Black during the above period were of the most cordial character, and it was with regret that they heard of his decision.

To fill the vacancy the Hydro-Electric Power Commission of Ontario appointed Mr. George Wright, who, in view of his high character, wide business experience and wholehearted support of the ideals of public ownership, was heartily welcomed by his colleagues on the Board.

**Proposed Purchase of Toronto Electric Light Assets under Franchise Agreement** In view of the fact that the City's agreement with the Toronto Electric Light Company provides that the City shall have the right to purchase the assets of the Company in the year 1919, and requires a year's notice if the City is to exercise its option, a By-law was passed by the City Council on July 2nd, 1918, giving notice under the agreement. Subsequently the City Council asked the advice of your Commissioners in regard to the matter and were advised by the Commissioners that in their opinion it is not advisable to purchase under the agreement.

**Re Extension Duncan Street Station** In the design of the extension to the Duncan Street building, which was completed during the year, space was provided for a limited amount of office accommodation and by making use of this space the System has been able to vacate the premises formerly occupied by the Engineering and Purchasing Departments at 15 Dundas Street East. The question of office accommodation is one that offers difficulties in view of the approaching expiry of the lease of the System's Yonge Street premises and the necessity of avoiding expense if the existing low rates are to be maintained.

**Patriotic Expenditures** Substantial outlays have again been necessitated during the past year by way of allowances to employees on active service and their dependents. The war has taken a heavy toll of human life and the employees of the System have taken an honorable part in the fight for freedom. The number of employees with the Colors and the list of casualties will be seen by referring to the Honor Roll on pages 25 to 29.

**Conclusion** The Toronto Hydro-Electric System is undoubtedly conferring great benefits and advantages upon the power and light consumers of the City. The Officers of the System have computed that reduced rates for residential and commercial light and for commercial power that have been instituted and maintained during the seven years ended 31st December last, have resulted in a net saving to its customers in these services as compared with the former prevailing



rates of approximately \$12,500,000.00. This sum in itself is much greater than the total capital invested in the enterprise by the City and the capital invested by the Provincial Commission on behalf of the City in right-of-way, tower lines and transformer stations. As a consequence of its competition there has also been an all-round reduction of rates for similar services rendered within the City by its commercial competitor. At the same time the quality of the service rendered by all has, under the stimulus of competition, greatly improved when compared with the pre-existing standard. In view of the acute coal shortage during the latter years of the war it is interesting to note that the power sold by the System in the City of Toronto for commercial purposes during the last three years would have required for its generation by steam under favorable conditions approximately 400,000 tons of coal. It is obvious that had the System's supply not been available the hardships resulting from the scarcity of fuel for domestic use would, on the one hand, have been greatly aggravated by the insistent competition for coal to generate power for the manufacture of munitions, while on the other hand there can be no question that under such circumstances the output of munitions from the City of Toronto would of necessity have been much less than was the case. As it was, the City of Toronto was enabled to turn out a very large quantity of munitions, thereby fulfilling a Patriotic duty and at the same time affording remunerative employment to a large number of citizens.

In conclusion, the Commissioners desire to testify to the efficient services of the General Manager and of a loyal and faithful staff, and to thank the City Council, the Toronto Press, and the citizens at large for their continued confidence in the enterprise and their effective support during a trying year.

Respectfully submitted by

THE BOARD OF COMMISSIONERS,

P. W. ELLIS,

*Chairman*

T. L. CHURCH,

*Mayor*

GEO. WRIGHT,

*Commissioner*



IMPROVED DOWN TOWN. 200 Watt Gas Filled



— FIVE LIGHT CLUSTER. 100 Watt per lamp —



STANDARD OVERHEAD Concrete pole 100 Watt



LOCAL IMPROVEMENT PLAN. — UNDERGROUND



UNIVERSITY AVE. Concrete pole 250 Watt Gas Filled



# CERTIFICATE OF AUDITOR

---

Toronto, March 10th, 1919

*To the Commissioners of  
The Toronto Hydro-Electric System:—*

I have completed the audit of the books and accounts of the Toronto Hydro-Electric System, for the year ended December 31st, 1918, and certify that the attached Balance Sheet is properly drawn up, and, in my opinion, sets forth the financial condition of the System, as shown by the books, as at December 31st, 1918.

I have examined the Accounts Receivable and have verified the cash balances.

(Signed) SHOLTO C. SCOTT, *Auditor*

*Chartered Accountant.*

# Revenue Account of the City of Toronto Hydro-

## SECTION I: SHOWING NET INCOME

### Charges

To Cost of Electric Current.....	\$824,251.36	
To Expenses of Operation and Management including Repairs, Maintenance and Accrued Charges, Provision for Pro- portion of Special Depreciation of Leasehold Buildings and Improvements (\$18,399.52) and Reserve for Doubtful Accounts Receivable.....	661,361.83	\$1,485,613.19
To Net Income available for Fixed Charges Carried Forward to Section II.....		867,830.74
		\$2,353,443.93

## SECTION II: SHOWING DIS-

To Interest.....	\$387,752.03	
To Depreciation.....	310,439.83	
To Sinking Funds:—		
Under City By-Law No. 5036	\$36,471.54	
Under City By-Law No. 5918	34,255.92	
Under City By-Law No. 6674	9,283.67	
Under City By-Law No. 7176	13,262.38	
	\$93,273.51	
To Redemption Funds:—		
Under City By-Laws No. 7584 and No. 7642.....	\$22,998.30	
Under City By-Law No. 7875	21,500.00	
Under City By-Laws No. 8052 and No. 7999.....	9,500.00	
Under Agreement with Pro- vincial Hydro - Electric Power Commission re sup- ply outside City.....	700.08	
	147,971.89	
To Net Income carried to Surplus Account.	21,666.99	\$867,830.74

Electric System for Year ended 31st December, 1918

FROM OPERATIONS OF YEAR

<u>Income</u>	
By Sale of Current for :—	
Lighting.....	\$743,914.13
Power.....	982,859.40
Street Lighting .....	300,593.05
Exhibition .....	15,748.13
Bulk Supply and other Municipalities.....	245,856.33
	<u>\$2,288,971.04</u>
By Income from sundry other sources.....	64,472.89
	<u><u>\$2,353,443.93</u></u>

POSITION OF NET INCOME

By Net Income available for Fixed Charges brought forward from Section I.....	\$867,830.74
	<u><u>\$867,830.74</u></u>

# Balance Sheet as at 31st December, 1918, of

## ASSETS

### Fixed Assets

Lands, Buildings, Transmission System, Sub-Station Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department and Miscellaneous Equipment, Miscellaneous Construction and Equipment Expenditures, and Exhibition Construction and Equipment .....	\$8,900,709.51	
Leasehold Premises and Improvements .....	29,994.54	
	\$8,930,704.05	
Debenture Discount and Expenses .....	634,037.85	\$9,564,741.90

NOTE :—Provision for writing off Debenture Discount and Expenses at the maturity of the respective Debenture issues is secured by the annual charges against the earnings in respect of Sinking Fund.

### Current Assets

Stores on hand and apparatus on Loan less reserve for Contingencies .....	\$ 635,784.99	
Accounts Receivable (including Orders in Progress) less Reserve for estimated losses (\$41,144.31) .....	346,786.59	
Cash on Hand and in Bank .....	68,784.83	\$1,051,356.41
Deferred Charges to future operations .....		12,134.27

\$10,628,232.58

# the City of Toronto Hydro-Electric System

Government  
Publications

<u>Capital Account</u>		<u>LIABILITIES</u>
Corporation of City of Toronto :—		
Sinking Fund Debentures :		
By-Law No. 5036, Cash Advanced .....	\$2,240,124.55	
Debenture Discount and Expenses .....	509,875.45	\$2,750,000.00
By-Law No. 5918, Cash Advanced .....	\$1,816,774.89	
Debenture Discount and Expenses .....	383,225.11	2,200,000.00
By-Law No. 6674, Cash Advanced .....	\$ 641,335.00	
Debenture Discount and Expenses .....	58,665.00	700,000.00
By-Law No. 7176, Cash Advanced .....	\$ 906,700.00	
Debenture Discount and Expenses .....	93,300.00	1,000,000.00
Instalment Debentures ;		
By-Laws 7584 and 7642, Cash Advanced .....	\$1,243,469.76	
Debenture Discount and Expenses .....	4,530.24	
	\$1,248,000.00	
<i>Deduct:</i> Amount redeemed to date under		
terms of By-Law .....	43,806.27	1,204,193.73
By-Law No. 7875, Cash Advanced .....	\$ 701,150.40	
Debenture Discount and Expenses .....	34,849.60	
	\$ 736,000.00	
<i>Deduct:</i> Amount redeemed to date under		
terms of By-law .....	\$ 21,000.00	715,000.00
Total Bonded Debt .....		\$8,569,193.73
Less Funds in City Treasurer's hands for		
Redemption .....		792,371.65
Net Bonded Debt .....		\$7,776,822.08
*Advances from Bank of Montreal .....	\$ 300,000.00	
Interest thereon accrued to date .....	2,959.00	302,959.00
Total Liabilities on Capital Account .....		\$8,079,781.08
<u>Current Liabilities</u>		
Corporation of City of Toronto :—		
Sinking Fund Instalments accrued .....	\$ 22,877.65	
Serial Debenture Instalments accrued .....	32,279.62	
Accounts Payable and Accrued Charges .....	161,382.57	
Total Current Liabilities .....		\$ 216,539.84
<u>Reserves</u>		
For Depreciation of General Assets .....	\$1,252,415.18	
For Depreciation of Leasehold Property .....	30,020.52	
For Workmen's Compens. and Pub. Liability .....	25,450.09	
For Contingencies .....	102,870.36	
For Sinking Fund .....	792,371.65	
By Redemption of Serial Debentures .....	64,806.27	\$2,267,934.07
Surplus .....		63,977.59
		<u>\$10,628,232.58</u>

\*NOTE: By-Law No. 8052 Instalment Debentures unnegotiated (\$650,000.00) but expenditure on Capital A/C authorized and incurred under this By-Law has been temporarily financed by advances from Bank of Montreal.



Surplus as at 31st December, 1918, of

To Amount written off Superseded Material .....	\$11,271.52
To Rebate on 1917 Street Lighting Account.....	22,237.18
To Balance Carried Forward.....	63,977.59
	<u>\$97,486.29</u>

the City of Toronto Hydro-Electric System

By Balance Brought Forward from 1917 .....	\$75,819.30
By Net Income from Operations of Year 1918 .....	21,666.99
	<u>\$97,486.29</u>



HYDRO · ELECTRIC · SHOP  
226 YONGE ST.



· BRANCH · STORE ·  
CARLAW & GERRARD ST.



226-8 Yonge St.,  
Toronto  
27th March, 1919.

## General Manager's Annual Report

*The Toronto Electric Commissioners :*

GENTLEMEN :

Herewith I beg to report on the operations of the Toronto Hydro-Electric System for the year 1918, the eighth year of its existence.

The year's working shows a net surplus of practically \$21,700.00, after providing for Interest charges on all Capital expended, Sinking Fund to retire all debentures at maturity, and, in addition, Depreciation sufficient to replace all the plant and other assets at the end of their useful life. Thus the same conservative practice has been continued.

In considering this result it must be borne in mind that the object of the System is not to create profit but to give the service as nearly at cost as possible consistent with sound and safe finance. During the year wages all round have been substantially increased, and all materials have been purchased at considerably higher prices. That street lighting charges have been reduced to the extent of approximately \$45,000, must be taken into consideration when comparing the results with those of the preceding year.

**Comparison with Previous Year**      The following comparison of the year 1918 with the results obtained during the year 1917 may be of interest :—

Increased Income .....	\$304,000.00	equal to over 14 $\frac{3}{4}$ %
Increase in K.W. Hrs. Sold .....	58,700,000	equal to over 34 $\frac{1}{2}$ %
Increased Operating Costs.....	\$ 51,800.00	equal to approximately 8 $\frac{1}{2}$ %
Increased Cost of Power Purchased.	\$139,800.00	equal to over 20%

From these figures it will be seen that the increased sales have been almost entirely at the lowest rates obtaining on the System. This is, of course, to be expected in view of the fact that increased business was entirely for munitions and war supplies.

### **Growth of the Business**

Some criticism in the past has been directed to the volume of Civic business which the System supplied. In this connection it may be of interest to point out that nearly 80% of the System's revenue during the year was from purely private business. The same division in the K.W. Hrs. is also noticeable so that the average price obtained per K.W. Hr. from each is practically the same.

The increase in the volume of business during the year was due to the additional demands for munitions and war supplies made on the System from time to time, which necessitated the refusal of a considerable volume of ordinary commercial business otherwise obtainable.

### **Power Shortage**

The power available for the use of the System was such as to render it impossible to deal with the demand other than by means of curtailments in different directions. The same difficulties were experienced as during the earlier days of the shortage in view of the absence of information as to the duration and magnitude of the shortage which made it impossible to predetermine arrangements with sufficient elasticity to automatically cover every situation as and when arising. Due, however, to the splendid and unselfish co-operation displayed in a very marked degree by the vast majority of the System's Consumers, the period of power shortage was tided over though not without considerable inconvenience in many directions. It is a pleasure, however, to record that practically without exception these inconveniences in view of the conditions that existed were cheerfully borne by individuals and the public at large.

### **General Extensions**

Practically no new work of any magnitude was put in hand on the System, but where the necessities of the load demanded increased capacity, the same was provided.

The building of Duncan Street Sub-station was practically completed and the equipment proceeded with as far as possible, having regard to the conditions.

In October the Engineering and Purchasing Departments were transferred from the temporary quarters to the accommodation provided for them on the top floor of the Duncan Street Sub-station.

An additional illustration of the way in which all extensions and other works have been cut down during the year is seen in the fact that



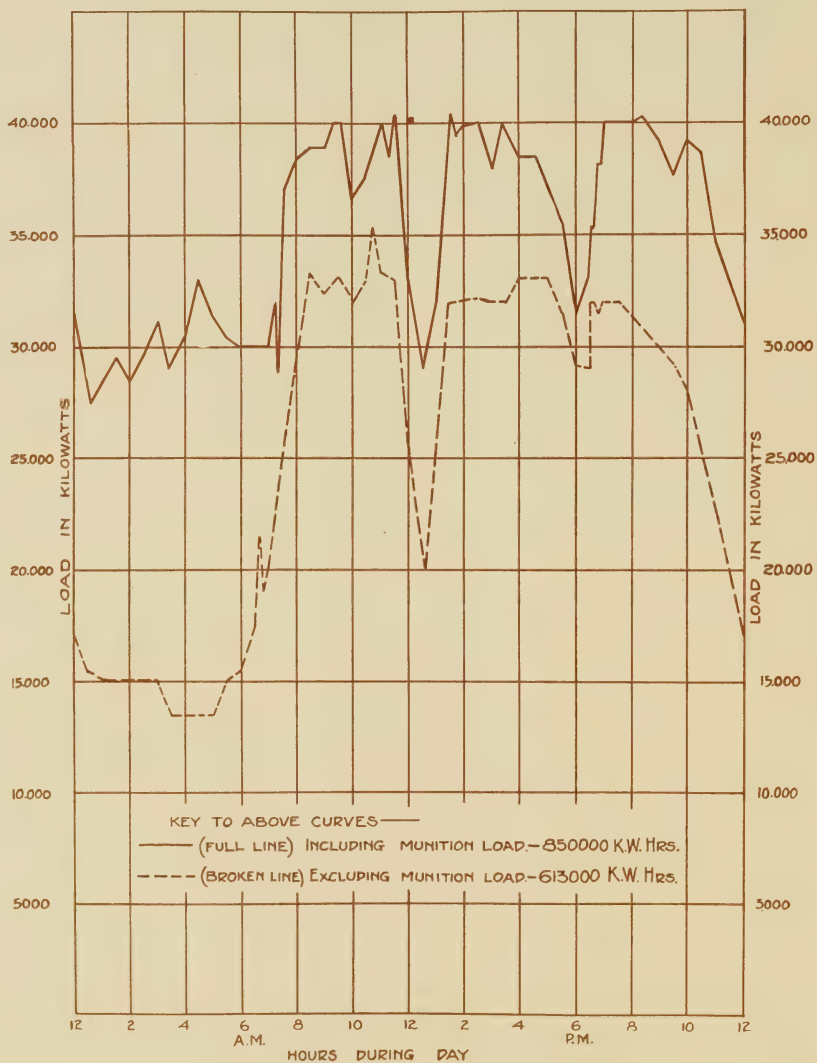
the appropriation authorized for Capital Expenditure, anticipated to suffice for the System's needs to the end of the year 1918, showed a balance in hand at the end of the year of \$100,587.24.

The work of incorporating the business of the old Interurban Electric Co. has been completed.

**Insurance**            The policy of carrying the System's Insurance has been continued in connection with the Workmen's Compensation Act and Public Liability. The Fund set up for this purpose,—provided on the basis of the cost of carrying the insurance if placed through a Company, after all expenses have been debited, shows a credit balance at the end of the year of \$25,450.09, which is the result of approximately two years' operation.

**Accident Prevention**    It is with a great deal of pleasure that I draw attention to the improved results obtained during the year, which point to greater efficiency in and more intelligent advantage taken of Accident Prevention work. Practical results are difficult to trace from Accident Prevention work, in the same way that increased sales cannot be conclusively proved by any mathematical calculation as following increased publicity. Both, however, when properly applied are undoubtedly productive of greatly improved results.

**Power Factor Correction**    The question of Power Factor Correction is still a live issue, and again has a very important bearing on the costs for the year. It will be remembered that some years ago the Commissioners agreed to the installation of Power Factor Correction apparatus. Due, however, to the delays in obtaining the necessary sanction (with the cause of which delays the Commissioners are familiar), the price of apparatus advanced so rapidly that, when the sanction was finally received, the Commissioners felt they would not be justified in making a large expenditure at greatly enhanced prices. The result of this is of course that each year until the apparatus is installed, the System will of necessity pay a sum for power purchased, approximately equal to, if not in excess of the carrying charges of the expenditure which would have been incurred in purchasing the plant at an inflated price. When, however, the market becomes normal the apparatus should be available at reasonable rates, when it can undoubtedly be demonstrated that the same will effect a substantial saving for the System.



TYPICAL LOAD CURVES SHOWING THE EFFECT OF THE CLOSING  
DOWN OF MUNITION PLANTS.

TORONTO HYDRO-ELECTRIC SYSTEM  
1918 REPORT

### **Collection of Consumers' Accounts**

Due to the discontinuance of the arrangement with the Banks, it became desirable to make provision for the payment of Consumers' accounts in more remote districts, other than by mail. Accordingly an arrangement was entered into with one of the Express Companies whereby accounts are payable at their different Branches. The present arrangement, while satisfactory in some ways, has not been uniformly so, and the present indications are that it may be necessary for the System to open Branch establishments for this purpose as soon as conditions permit. Such policy, besides filling the foregoing need among others, would also serve a most useful purpose in the distribution of appliances to the public.

### **Curves**

Curves are appended hereto showing graphically the sales of the different classes of energy, increases in the Capital Expenditure, Peak, also comparison of the prices obtained from different classes of service, etc., on the same basis as before.

A curve appears opposite on page 22 which shows the conditions of the load prior to the signing of the Armistice, and a comparison taken subject to the shut down of munitions contracts.

The System Peak illustrated in the curve showing the transition from War to Peace conditions differs very little from the curve illustrating the original change from Peace to War conditions. A comparison, however, between the utilization of the available power in the year 1918, as compared with 1917 (both years of shortage), shows that during the former year power available was used to even greater advantage than in other years. That is to say, the power was used during longer hours or again, expressed differently, the year 1918 shows an improved load factor.

### **Honor Roll**

The total number of employees who have seen service with the Colors is shown on the Honor Roll on pages 25 to 29. It is with regret that the following additional casualties during the year are recorded:—

Killed in action or missing, 4; Wounded, 3.

The work of demobilization is being carried out at an increasingly rapid rate. Up to the end of the year 1918, 28 men previously in the employ of the System had been honorably discharged, due either to physical incapacity or demobilization. Up to the middle of March, 1919, forty men have similarly been discharged. The Commissioners have in the past year continued the grants to the dependents of the employees with the Colors on the same basis, the cost being debited to the Operating charges for the year.

**Future  
Outlook**

The future outlook, as far as the System is concerned, is almost entirely dependent on the prosperity of the country in general and Toronto in particular. Indications at the present moment, however, are that all power available for the System's requirements can be readily sold. In fact, at the time of writing this report, considerably more power could be sold were the same available. It may be of interest to point out that in spite of the discontinuance of the demand for munitions and war supplies, which demand was responsible for a connected load on the Toronto System of approximately 50,000 H.P., the peak load demand at present on the System is within three or four thousand kilowatts of the demand of the corresponding period of the preceding year. This may perhaps be taken as a reply to some of the pessimistic statements that are made from time to time as to the outlook. At the same time it vividly illustrates the result of the reaction following the removal of the restrictions—voluntary and statutory—placed on the demand for service during the period of shortage.

**Financial  
Statement**

Due to the exigency of the Bond Market, the Bonds issued under the last sanction were not sold during the year, therefore a loan from the Bank was obtained to cover the temporary needs of the System. Since the end of the year, however, the Bonds have been sold and the temporary advance repaid. If there is no alteration in the situation between now and the end of the present year it is hoped that an additional appropriation for Capital Expenditure will not be required.

It is with a great deal of pleasure that I again record the sincere appreciation of the valuable services rendered by the Staff, to whose efforts, combined with the splendid support of the Consumers and the Public, is largely due the measure of success attained in the past. Our thanks are also due to those officials of the City who have so heartily co-operated with the System.

H. H. COUZENS,  
*General Manager.*



## KILLED IN ACTION

NAME	REGIMENT OR BATTALION	RANK
H. J. COSH - - -	Princess Patricia's - - -	Private
H. BAND - - -	15th Battalion - - -	Sergeant
J. DEWAR - - -	15th Battalion - - -	Private
J. DUGUID* - - -	Gordon Highlanders - - -	Private
R. FLAXMAN - - -	15th Battalion - - -	Private
WM. WORDEN - - -	39th Battalion - - -	Private
J. E. WOOLLEY - - -	19th Battalion - - -	Private
A. H. CARSWELL - - -	134th Battalion - - -	Sgt.-Major
T. LEE - - -	95th Battalion - - -	Private
A. CHRISTIE - - -	124th Battalion - - -	Private
A. A. THORNE - - -	Princess Patricia's - - -	Private
R. SANDFORD - - -	92nd Battalion (M.M.) - - -	Co. S.-Maj.
D. LAIDLAW - - -	92nd Battalion - - -	Private
W. A. RUMSBY - - -	12th Reserve Battalion - - -	L.-Corporal
A. FERGUSON - - -	92nd Battalion - - -	Private

## WOUNDED OR INCAPACITATED

NAME	REGIMENT OR BATTALION	RANK	
R. J. WHITEMAN	3rd Battalion - - -	Private	Wounded
H. J. MacTAVISH	19th Div. Am. - - -	Lieutenant	Wounded
J. F. M. NIXON - -	3rd Battalion - - -	Sergeant	Wounded
W. GRAHAM - - -	19th Battalion - - -	L.-Corporal	Wounded
J. E. RAMSAY - - -	166th Battalion - - -	Private	Wounded
T. H. STEWART - - -	92nd Battalion - - -	Corporal	Wounded
J. M. KERR - - -	134th Battalion - - -	Act. L.-C.	Wounded
C. H. W. NOBLE - -	Can. Army Ser. Corps - - -	Private	Shell Shock
R. ROBERTSON - - -	134th Battalion - - -	Private	Wounded
J. GILSON - - -	20th Battalion - - -	Private	Wounded
A. HEARD - - -	20th Battalion - - -	Private	Illness
S. PETERS - - -	3rd Battalion - - -	Corporal	Wounded
W. THORNTON - - -	75th Battalion - - -	Private	Wounded
T. W. KIRKPATRICK	1st Can. Command Dep't - - -	Dep. Corp.	Wounded
C. A. OLIES - - -	92nd Battalion - - -	Private	Wounded
R. J. CLAPTON - - -	3rd Can. Battalion - - -	Sergeant	Wounded
P. CHAPMAN - - -	23rd Reserve Battalion - - -	Corporal	Wounded

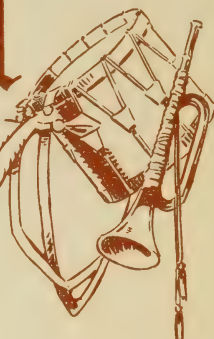
\*British Army Reservist.







# Honour Roll



## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

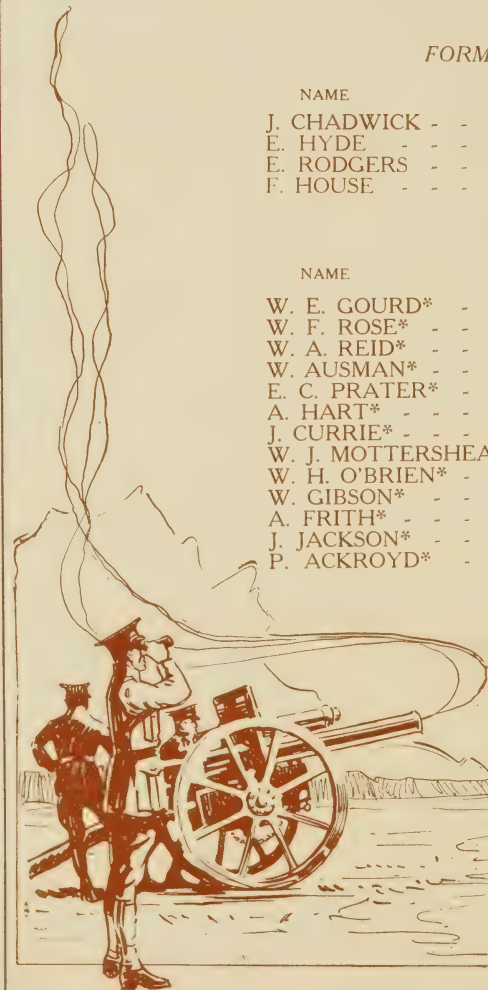
### FORMERLY PRISONERS OF WAR

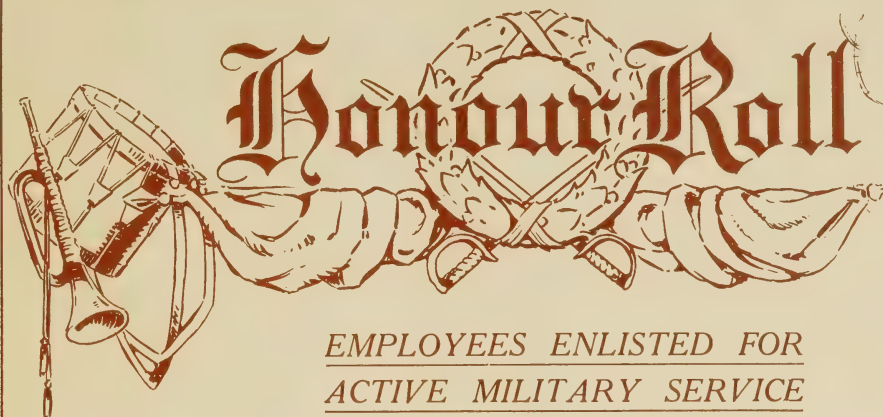
NAME	REGIMENT OR BATTALION	RANK
J. CHADWICK - - -	15th Battalion - - - - -	L.-Corporal
E. HYDE - - - - -	3rd Battalion - - - - -	Private
E. RODGERS - - -	15th Battalion - - - - -	Sergeant
F. HOUSE - - - - -	15th Battalion - - - - -	L.-Corporal

### ON MILITARY SERVICE

NAME	REGIMENT OR BATTALION	RANK
W. E. GOURD* - -	169th Battalion - - - - -	Private
W. F. ROSE* - - -	166th Battalion - - - - -	Private
W. A. REID* - - -	1st Div. Cyclists - - - - -	Private
W. AUSMAN* - - -	134th Battalion - - - - -	Private
E. C. PRATER* - -	Army Medical Corps - - - -	Private
A. HART* - - - - -	15th Battalion - - - - -	Private
J. CURRIE* - - - -	60th Battalion - - - - -	Private
W. J. MOTTERSHEAD*	169th Battalion - - - - -	Private
W. H. O'BRIEN* - -	123rd Battalion - - - - -	Sergeant
W. GIBSON* - - - -	83rd Battalion - - - - -	Act. Sergt.
A. FRITH* - - - - -	R.A.F. - - - - -	Fitter
J. JACKSON* - - -	R.C.H.A. - - - - -	Private
P. ACKROYD* - - -	R.C.H.A. - - - - -	Sergeant
T. H. HODGINS* - -	4th Can. M. R. - - - - -	Trooper
A. McFADDEN* - - -	36th Battalion - - - - -	Corporal
E. GREENHEAD* - -	1st C.O.R.D. - - - - -	Private
F. LOMAS* - - - - -	204th Battalion - - - - -	Private
N. V. CURZON* - - -	Depot Squad. - - - - -	
	Can. Dragoons - - - - -	Private
E. GILBERT* - - - -	2nd D.S.C. - - - - -	Private
G. L. LILLIE* - - -	Navy, H.M. - - - - -	
	C.S. Vimy - - - - -	Engineer
S. BAIRD* - - - - -	R.C.H.A. - - - - -	Gunner
C. L. NICHOLSON* - -	R.A.F. - - - - -	
W. E. TOY* - - - - -	R.A.F. - - - - -	Private
H. A. RUSSELL* - -	R.A.F. - - - - -	Private
R. LUND* - - - - -	4th Pioneer Batt. - - - -	Private
S. H. LOWER* - - -	For. & Con. Batt. - - - -	Private

\*Honorably Discharged.





## EMPLOYEES ENLISTED FOR ACTIVE MILITARY SERVICE

ON MILITARY SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
JAMES WRAY* - -	208th Battalion - - -	Private
S. L. HALLATT* - -	R.A.F. - - -	3rd A.M.
E. SECORD* - - -	Corps of Guides - - -	Sergeant
F. M. FIRTH* - - -	R.A.F. - - -	
A. BELL - - -	A.M.C. Field Ambulance	Private
F. M. McKEEGAN - -	Army Medical Corps - -	Private
A. K. COULTHARD - -	3rd Battalion (M.M.)	Captain
A. W. COULTER - - -	1st Div. Machine Gun Co.	Lieutenant
R. JONES - - -	3rd Battalion - - -	Private
A. J. CHURCH - - -	1st Div. Sig. Co. - - -	Corporal
T. JOHNSTONE - - -	Army Service Corps - -	Sergeant
A. HUGHES - - -	4th Brigade - - -	Private
J. A. FOLLANSBEE - -	19th Battalion - - -	Sergeant
F. H. CANTLON - - -	Casualty Depot, England -	Sgt. Inst.
H. CUNNINGHAM - - -	Army Medical Corps - -	Private
J. C. MANSON - - -	Engineers, Wireless Signals	Lieutenant
A. G. KEAN - - -	Army Service Corps - -	Corporal
R. MEESON - - -	C.F.A., 30th Battery - -	Signaller
W. B. COWAN - - -	Hampshire Regiment - -	Captain
J. A. TILSTON - - -	Engineers, Railway Con. -	Sapper
S. H. MUNRO - - -	C.F.A. - - -	Lieutenant
G. W. HARRIS - - -	36th Battalion - - -	Private
H. JEX - - -	Army Service Corps - -	Sergeant
R. J. PEARCE - - -	4th Battalion, 1st Brigade	Private
T. SIMPSON - - -	92nd Battalion - - -	Act. Co. S.-M.
A. J. WRIGHT - - -	Royal Flying Corps (M.M.)	Lieutenant
W. A. STEEL - - -	2nd Mil. Div. Hdq. Sig. St.	Sgt.-Inst.
C. MILLER - - -	127th Battalion - - -	Private
E. WILSON - - -	92nd Battalion - - -	Private
R. BAKER - - -	58th Battalion - - -	Private
E. MEESON - - -	Mechanical Transport - -	Lieutenant
W. H. RUSSELL - - -	Royal Flying Corps - - -	Flt. Cadet
W. ROBERTSON - - -	No. 4 Canadian Sig. Corps	Private
J. E. WITHERS - - -	C.F.A., 2nd Res. Battery	Sergeant
W. G. CAMBRIDGE - -	92nd Battalion - - -	Private

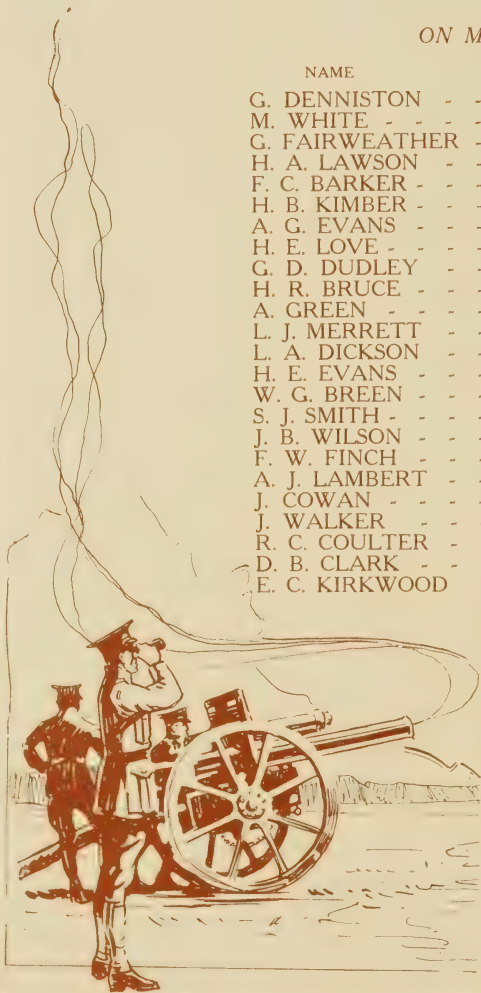
\*Honorably Discharged.





ON MILITARY SERVICE--(Continued)

NAME	REGIMENT OR BATTALION	RANK
G. DENNISTON - -	C.F.A., 45th Battery - - - -	Private
M. WHITE - - -	58th Battalion - - - - -	Sergeant
G. FAIRWEATHER -	92nd Battalion - - - - -	Private
H. A. LAWSON - -	C.F.A., 1st Brigade, 4th Battery -	Signaller
F. C. BARKER - -	C.F.A., 9th Brigade - - - -	Lieutenant
H. B. KIMBER - -	Army Medical Corps - - - -	Corporal
A. G. EVANS - - -	75th Battalion - - - - -	Private
H. E. LOVE - - -	95th Battalion - - - - -	Co. Q.M.S.
G. D. DUDLEY - -	35th Battalion - - - - -	Private
H. R. BRUCE - - -	166th Battalion - - - - -	Sergeant
A. GREEN - - - -	Army Service Corps - - - -	Driver
L. J. MERRETT - -	123rd Battalion - - - - -	L.-Corporal
L. A. DICKSON - -	Army Service Corps - - - -	Private
H. E. EVANS - - -	C.F.A., 53rd Battery - - - -	Corporal
W. G. BREEN - - -	126th Battalion - - - - -	Private
S. J. SMITH - - -	124th Battalion - - - - -	Private
J. B. WILSON - - -	C.F.A., 34th Battery - - - -	Gunner
F. W. FINCH - - -	124th Battalion - - - - -	Private
A. J. LAMBERT - -	C.F.A., 34th Battery - - - -	Gunner
J. COWAN - - - -	134th Battalion - - - - -	Private
J. WALKER - - - -	134th Battalion - - - - -	Private
R. C. COULTER - -	126th Battalion - - - - -	Private
D. B. CLARK - - -	Engineers - - - - -	Sapper
E. C. KIRKWOOD -	Army Service Corps - - - -	Private
G. LEE - - - - -	198th Battalion - - - - -	Bugler
W. C. WARE - - -	169th Battalion - - - - -	Private
J. SMITH - - - -	Eng., B. I. Co. - - - - -	L.-Corporal
W. N. TAYLOR - -	Army Ser. Corps - - - - -	Private
B. U. HARGREAVES	169th Battalion - - - - -	Private
S. BECKETT - - -	Eng., 2nd F. Co. - - - - -	Sapper
W. W. SIMMONS -	44th Rgt., C.E.F. - - - -	Private
H. C. STACEY - -	124th Battalion - - - - -	Private
W. J. HAMILTON -	166th Battalion - - - - -	Private
F. W. JARVIS - -	127th Battalion - - - - -	Private
J. FRAME - - - -	Army Ser. Corps - - - - -	Private
V. O. BROOKS - -	166th Battalion - - - - -	Private
E. MORGAN - - -	180th Battalion - - - - -	Private







ON MILITARY SERVICE—(Continued)

NAME	REGIMENT OR BATTALION	RANK
A. JAMIESON - - -	169th Battalion (D.C.M.)	Sgt.-Major
T. CLERK - - -	216th Battalion - - -	Corporal
R. S. FOWLER - - -	R.C.H.A., "C" Battery -	Sgt.-Major
A. H. GRANT - - -	R.C.H.A., "C" Battery -	Gunner
R. H. GRANT - - -	C.F.A., 53rd Battery -	Sergeant
P. MALPAS - - -	R.E.P.I. Co. - - -	Private
M. MACKAY - - -	204th Battalion - - -	Private
J. A. WHYTE - - -	204th Battalion - - -	Co. Q.M.S.
R. RICHARDS - - -	170th Battalion - - -	Private
D. E. IRWIN - - -	92nd Battalion - - -	Private
J. H. FORD - - -	198th Battalion - - -	Private
W. G. BAKER - - -	220th Battalion - - -	Private
F. A. STARR - - -	R.C.H.A., "C" Battery -	Gunner
J. M. CARLISLE - -	Engineers, 2nd Field Co. -	Sapper
H. POOLE - - -	201st Battalion - - -	Private
W. P. CARLTON - -	220th Battalion - - -	Private
WM. POINTON - - -	No. 2, C.A.S. Corps - - -	Captain
WM. CLARK - - -	1st Con. Overseas Battalion	Private
JOHN PAYNE - - -	238th Battalion - - -	Private
G. L. GARRATT - -	Royal Flying Corps - - -	2nd Class Mech.
J. E. DAY - - -	Royal Flying Corps - - -	2nd Class Mech.
WM. J. RYAN - - -	Royal Flying Corps - - -	2nd Class Mech.
HAROLD POTTER - -	70th Battery, C.F.A. - - -	Gunner
JOHN A. SIMPSON -	Signalling Corps - - -	Sapper
R. A. CLARK - - -	Canadian Engineers - - -	Sapper
S. L. PEER - - -	71st Battery, "A" Brigade	Gunner
J. H. MOULD - - -	Navy, H.M.P.V. No. 5 -	Stoker
R. G. MATTHEWS - -	Canadian Engineers - - -	Lieutenant
N. MARTIN - - -	C.E.F. - - -	-
T. CARNOCHAN - -	C.E.F. - - -	-
W. R. GREEN - - -	No. 2 Depot Battalion -	Private
ROBERT FORREST -	5th Plat., "B" No. 2 Dep.	Private
E. A. DALLEY - - -	1st Tank Battalion - - -	Private
CECIL H. DYE - - -	69th Battery, C.F.A. - -	Private
N. LAVOIE - - -	"A" Co., E.F.D. - - -	Private
R. S. BELL - - -	Canadian Engineers - - -	Sapper
T. EGAN - - -	2nd Battalion - - -	Sapper



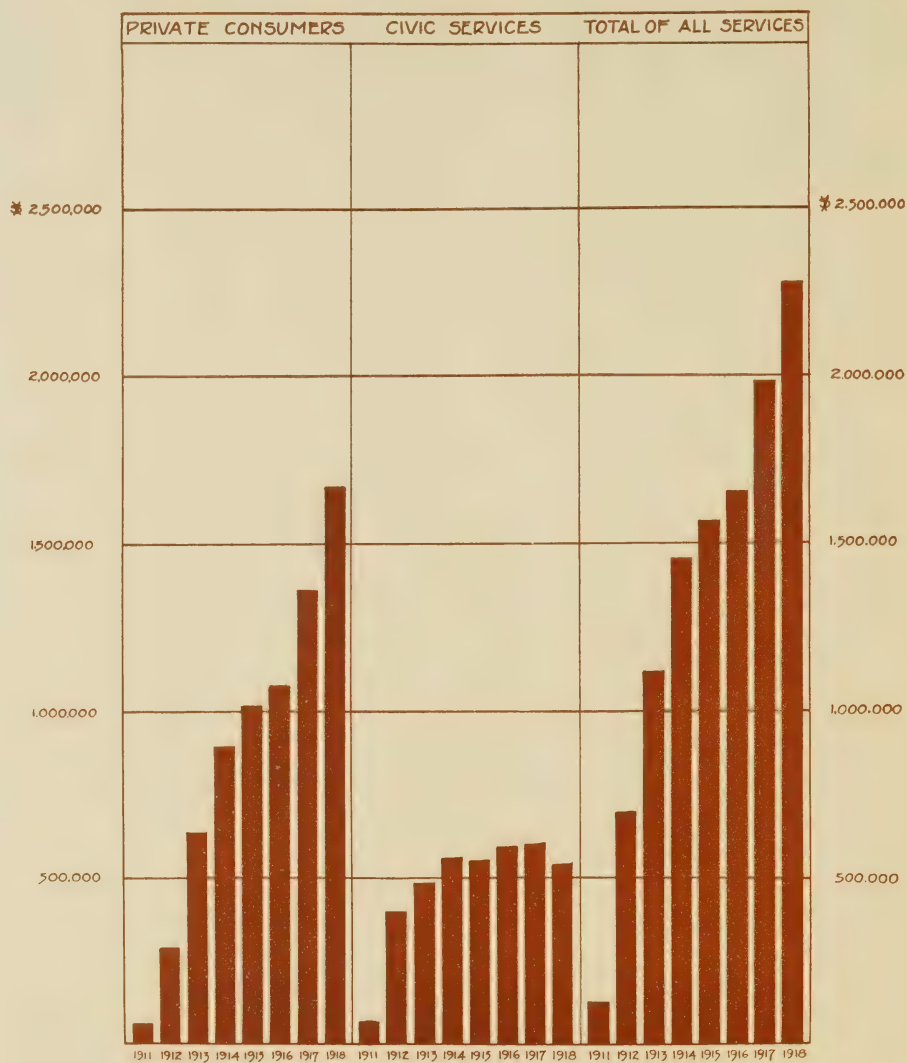


DIAGRAM SHOWING THE COMPARATIVE GROWTH OF THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES OF SERVICE YEAR BY YEAR.

NOTE: REDUCTIONS IN THE RATES CHARGED FOR ELECTRIC SERVICE WERE MADE AT THE BEGINNING OF THE YEAR 1915, AND ALSO AT THE BEGINNING OF THE YEAR 1916.

TORONTO HYDRO-ELECTRIC SYSTEM  
1918 REPORT





CAPITAL EXPENDITURE, PEAK LOAD, REVENUE (PER K.W. HR. SOLD) AND SURPLUS YEAR BY YEAR.

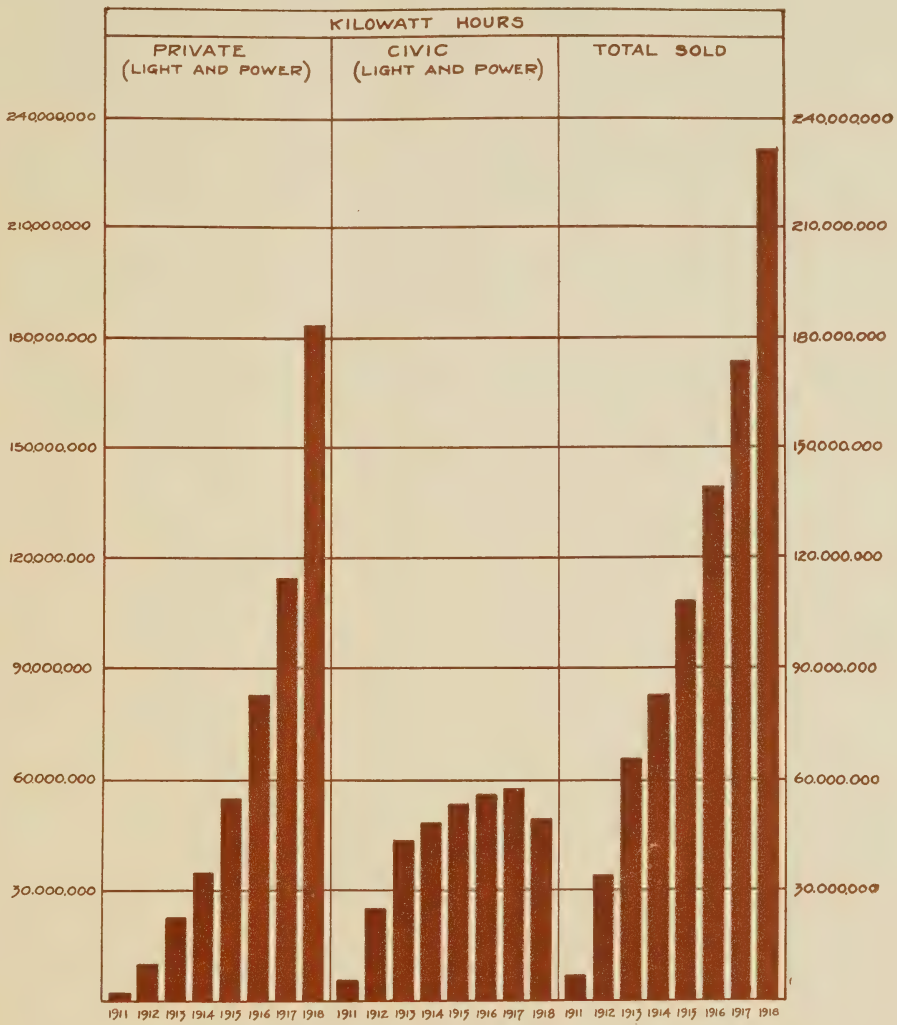
NOTE: REDUCTIONS IN THE RATES CHARGED FOR ELECTRIC SERVICES WERE MADE AT THE BEGINNING OF THE YEARS 1915 AND 1916.

TORONTO HYDRO-ELECTRIC SYSTEM  
1918 REPORT



GROWTH OF BUSINESS YEAR BY YEAR FOR VARIOUS  
CLASSES OF SERVICE.

TORONTO HYDRO-ELECTRIC SYSTEM  
1918 REPORT



SALE OF ELECTRICAL ENERGY.

TORONTO HYDRO-ELECTRIC SYSTEM  
1918 REPORT









~~Pol. Sci~~

*Toronto Electric Commission*

~~Pol. Sci~~

Government  
Publications

# *The* TORONTO HYDRO ELECTRIC SYSTEM



NINTH  
ANNUAL REPORT  
1919

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*The Commissioners*





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Publication

# THE TORONTO HYDRO-ELECTRIC SYSTEM



THE NINTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS  
1919



## Commissioners' Report.

*To His Worship the Mayor and the Members of the Council of  
the Corporation of the City of Toronto.*

TORONTO.

Gentlemen :—

Your Commissioners beg to submit their Ninth Annual Report on the operations of the Toronto Hydro-Electric System for the year ended 31st December 1919, accompanied by the Revenue Account, Balance Sheet, and subsidiary Statements. The Accounts have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended thereto.

FINANCIAL POSITION AS AT      The operations for the year 1919 have resulted  
31st DECEMBER 1919:      as follows :

The gross income amounted to the sum of.....	\$2,504,758.31
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of.....	1,577,122.50
Leaving a surplus of income on operating account of.....	\$ 927,635.81
Interest, Depreciation, Exchange, Sinking Funds and Debenture retirals absorbed the sum of.....	923,484.49
Leaving a surplus of net income for the year of.....	\$ 4,151.32

Had the enterprise been conducted as a commercial corporation with perpetual share capital the net earnings for the year would have been shown at the amount of \$568,377.43, that being the sum of the interest payments, the sinking fund appropriations, the debenture retirals, and the net surplus. This would be the equivalent of a dividend at the rate of approximately 7% for the year on the average amount of capital invested.

The net funded debt at 31st December 1919 less sinking funds in the City Treasurer's hands amounted to the sum of \$8,244,533.89 all of which will be promptly paid at maturity by the annual retirals of the serial debentures and by the operation of the sinking funds applicable to the long term debentures.

The total amount of the unfunded debt at the same date was \$284,394.81 against liquid asset resources of \$1,346,456.17. Of the latter \$475,190.98 represented cash on hand and on deposit.

Surplus funds, representing profits after meeting all operating costs and exchange losses, had been accumulated at the same date to the amount of almost three million dollars as follows, viz:—

(1) A Reserve Fund for the replacement in the future of Buildings, Plant, and General Equipment as such wear out, of.....	\$1,635,701.20
(2) Reserve Funds for general contingencies, for loss on American exchange, and for contingent liabilities arising out of the Workmen's Compensation Act, of.....	157,125.54
(3) Reserve Funds held by the Provincial Hydro-Electric Commission on account of the Toronto System, of.....	129,125.46
(4) Sinking Funds held by the City Treasurer for the retiral at maturity of Debentures, and interest thereon, of.....	910,100.61
(5) Serial Debentures retired, thereby creating additional equity in underlying property, of.....	129,365.50
(6) Additional free Surplus of.....	101,447.29
<i>TOTAL RESERVES AS PER BALANCE SHEET</i> .....	\$3,062,865.60
(7) <i>LESS:</i>	
(a) The Reserve for Depreciation of leasehold property for which no value is held.....\$	44,167.95
(b) The Reserve for loss on American exchange which was an actual incurred liability at the end of 1919.....	18,831.33      62,999.28
<i>NETT RESERVES OF THE NATURE OF SURPLUS</i> .....	\$2,999,866.32

This striking result has been accomplished in eight years after operating on a scale of consumers' rates, which, while materially lower at the beginning than that of the System's principal competitor has been since substantially reduced—twice as to general rates and twice as to street lighting rates ; after charging all repairs and maintenance expenditure against income ; after paying on the whole a higher rate of interest on the Debenture Capital than was anticipated at the inception of the enterprise—interest that may be regarded as the equivalent of a reasonable dividend on the like capital of a like enterprise privately owned ; after establishing voluntarily a generous scale of compensation for all employees and paying the still higher rates

that by Conciliation Boards and otherwise have been added from time to time to the original voluntary scale ; and after making liberal subscriptions to Patriotic objects during the War, and liberal grants to employees who went to the Front, and to their dependents. In this connection it is worthy of special note that no charge has been made against Capital Expenditure at any time that should have been met out of Income. These funds therefore represent the accumulations of bona-fide surpluses after meeting out of Income every element of operating expense properly attributable thereto.

OPERATIONS  
OF 1919.

**POWER COST:** The electric current purchased from the Hydro-Electric Power Commission of Ontario during the year cost \$812,867.47 or 32.5% of the gross income, against \$824,251.36

for the preceding year or 35.0% of the gross income of that year. The yearly averages of the monthly peak loads from the first complete year of the enterprise to the end of 1919 are as follows :—

<i>Year</i>	<i>H.P.</i>	<i>Year</i>	<i>H.P.</i>
1912.....	10,794	1916.....	36,158
1913.....	17,051	1917.....	44,855
1914.....	21,572	1918.....	54,392
1915.....	28,722	1919.....	47,600

The reduced average for the year 1919 is due principally to the slowing down of the munitions manufacturing industries occasioned by the Armistice, and to the inability of the Hydro-Electric Power Commission of Ontario to furnish additional power. For the latter reason the Commission restricted as much as possible the new business for the year 1919. At the governing rate of \$14.50 per H.P. fixed by the Provincial Commission the charge for the year would have been \$706,012.96, or only 28.2 per cent. of the gross income. After the close of the year's operations however, the Provincial Commission advised your Commissioners that the cost of the power supplied them during the year was \$106,854.51 greater than had been charged under the standard rate aforesaid, and they directed your Commissioners to assume this deficiency, thereby raising the cost for the year to the sum of \$812,867.47 as stated above or \$16.70 per H.P. instead of the standard rate of \$14.50 per H.P.

**OPERATING EXPENSES:** The expenses of operation and management amount to \$764,255.03 or 30.5 per cent. of the gross income against \$661,301.83 for the preceding year or 28.1 per cent. of the gross income of that year.

This increase is partly due to labour conditions. In common with the majority of other employers, your Commissioners found it necessary during the year to grant substantial increases to the employees of the System. The additional burden so



assumed is not fully reflected in the accounts for the reason that the increases did not come into force until after midsummer. A further increase has been requested this year. This was referred to a Board of Conciliation which at the time of writing has just issued its report in favour of a further increase. Your Commissioners have not yet however had an opportunity of considering the merits of the further increases so recommended. Such increases combined with the rising cost of materials and the impossibility, owing to the shortage of power, of increasing the output will in all probability lead to a necessary increase in consumers' rates.

*CHARGES AGAINST OPERATING SURPLUS:* The usual provision has been made for Interest, Depreciation, Sinking Funds, and Serial Debenture retireals.

An additional element appears however this year, in the provision of \$18,831.33 for "exchange on payments in respect of Interest and redemption of Debentures". This was occasioned by some of the Debentures having been made payable both as to principal and interest in New York as well as in Toronto in consequence of which remittances had to be made to New York subject to the heavy discount on Canadian funds ruling at the times thereof. The obligation assumed to pay in New York was no doubt a necessity at the time the Debentures were issued. This is an explanation of the cause of the charge ; not a criticism of the terms attached to the debentures. In view of the adverse rates of American Exchange now prevailing and the tendencies thereof, a much larger outlay may be incurred during the current year for the same purpose.

Until equilibrium is restored between the reciprocal—and currently maturing—indebtedness of Canada and the United States, or until gold moves freely from the Dominion in settlement of international balances, rates of exchange adverse to Canada are liable to continue which may on occasions prove very severe. The possible consequences of this should be well considered when Canadian municipalities consider Canadian versus American bids for their debenture issues and when they make them payable in gold in the United States. The obligation to pay the principal and interest of a Canadian debenture issue, in gold in New York, would prove seriously burdensome if the covering remittances had to be made at a premium of from say ten to fifteen per cent. as has been quite common of late. No-one who fully appreciates the present International, Economic and Financial problems of the world would venture to place a limit of 15% or even 25% upon the possible maximum of adverse exchange, or any limit upon the period of its duration, or to hazard the opinion that immunity from its recurrence would follow the restoration of normal conditions, even though such restoration proceeded solely and wholly from the recovery of internal strength.

In the meantime it is worth noting that a five year six per cent. Canadian debenture sold at par in Canadian funds, with half-yearly interest and principal

payable in gold in New York would cost the issuing municipality a little over 8 per cent per annum if the covering remittances had to be made at an average adverse exchange rate of 10 per cent ; and if the average exchange should be 15 per cent the cost of the loan would be a little over 9% per annum. If six per cent serial debentures were issued, and sold at par in like funds, with equal annual instalments of principal maturing over five years, payable as to principal and half-yearly interest in gold in New York, the cost to the borrowing municipality would be approximately 9½ per cent per annum on an average adverse exchange rate of 10 per cent and approximately 11½ per cent per annum on a like rate of 15 per cent. Shorter term loans would be still more costly—and especially so in the case of serial debentures—by reason of the exchange premium settling over a shorter period. These are illustrations—and illustrations only—of the effect of adverse American exchange on the cost of money borrowed under the conditions outlined. It is not suggested that five year 6 per cent debentures is a normal mode of municipal financing. In view therefore of the general uncertainty of the outlook, and the additional dangers inherent in the disturbed state of the world-at-large—dangers that are not by any means sufficiently realised by many, and that may well affect international trade for a long time to come—it is only the part of ordinary prudence to refuse to assume such an obligation except in cases when the money is an absolute necessity and when it cannot be obtained on other terms. During normal pre-war times this risk was negligible and by reason of the greater marketability imparted to debentures by the condition in question it was freely assumed. Under present conditions however in the case of debentures that are marketed in Canada the obligation should not be assumed. Debentures sold and marketed in the United States must of course, under present conditions, be made payable in gold in the United States. But when such debentures are sold and marketed in Canada, and when such obligation is unnecessarily assumed, it puts it in the power of the Canadian investor to cash his coupons and collect his principal in New York whenever the rate of exchange is favorable to him and to obtain thereby an additional profit at the cost of the borrower.

These are not submitted as reasons why Canadian Municipalities should not assume the necessary business risks that others must accept, but as reasons why they should not assume unnecessary business risks. The patriotism of Canadian Bond houses may therefore surely be relied upon—in view of the heavy burdens bequeathed by the War—to assist in protecting the country from risks of this kind when the monetary conditions of the time permit. With the cessation of Dominion War Loan issues there will of course be a corresponding increase in the power of the Dominion to absorb its own municipal issues.

**GROSS INCOME AND OUTPUT:** Despite the power shortage, the gross income increased by 6.4 per cent over that of 1918 ; and the commercial income by

4 per cent over that of 1918. The commercial income for the year amounted to 72.8 per cent of the total as compared with 78 per cent in 1918, 71.8 per cent in 1917, 67.0 per cent in 1916, 66.4 per cent in 1915, 63.9 per cent in 1914 and 59.05 per cent in 1913. The following table gives other instructive details of output, load and progress :—

End of	Meters in Use	Street Lights in Use	Kilowatt Hours Sold	Connected Load H.P.	Peak Load H.P.
1912	13,858	33,824	35,176,548	46,296	17,198
1913	24,999	38,944	65,052,951	68,461	22,520
1914	33,976	40,596	82,927,015	90,162	28,753
1915	39,284	43,411	109,501,981	111,413	40,180
1916	44,013	45,212	139,003,756	125,840	47,165
1917	50,461	45,841	171,691,213	169,818	56,662
1918	53,598	29,527	230,413,561	184,930	60,154
1919	63,762	45,091	180,609,938	176,351	59,618

Owing to the shortage of power during 1918 and 1919 it was necessary to stop canvassing for new business and to curtail the street lighting.

#### DOUBLE INCIDENCE OF SINKING FUNDS AND DEPRECIATION RESERVES :

It is perhaps worth while again drawing attention to the double incidence of the Sinking Funds and the Depreciation Funds : If the enterprise were endowed with permanent capital issued in the form of irredeemable Capital Stock as is common to joint stock companies, the Sinking Fund charges that now have to be met out of income would be avoided ; and the most severe obligation of sound finance would only require that depreciation funds sufficient to replace the Buildings and Equipment as they wear out should be accumulated out of Income. In view of the fact however that the capital of the enterprise has been raised by means of debentures that require to be paid off at maturity, it is necessary that such a sum be set aside out of income each year, as will with the interest accruing thereto from its proper investment, amount to sufficient to pay the debentures at maturity. In the case of serial debentures which mature at specified rates from year to year, the amount of each year's maturity must be provided out of each year's income. As the Plant wears out it must of course be replaced and to save making new debenture issues from time to time under the obligation of the Corporation of the City of Toronto to provide the new replacement plant, it is also necessary to accumulate out of income a depreciation fund sufficient therefor. Hence a municipal utility such as this, while rendering service at cost, must include within its costs for the purpose of rate-making, not only the necessary annual sinking fund instalments

and the necessary serial debenture instalments to retire the debenture capital at maturity, but also the depreciation funds required to replace the plant as it wears out.

It has been estimated by the Officers of the Commission that the rates for residential and commercial light and power that have been charged during the past eight years have saved its customers not less than approximately \$17,000,000 of the aggregate they would have paid had the normal rates that were in force in this city at the inception of the enterprise been continued.

That the Toronto Electric Commission has been able to meet the double charge above mentioned from which private enterprise, when carried on with irredeemable capital, is exempt ; to relieve the credit of the ratepayers of the burden of replacement debentures ; and to furnish light and power at the rates, and with the savings to the public that have been mentioned, will perhaps be regarded as a sufficient vindication—at least from the material and administrative points of view—of the policy of establishing The Toronto Hydro-Electric System and of the work of your Commissioners. It is only just, however, in this connection, to acknowledge the exceedingly valuable work of the General Manager, Mr. H. H. Couzens. For the past seven years he has rendered services that have been uniformly marked by capacity of the highest order combined with fidelity and courtesy in equal degree. During this whole period he has had no holidays and during the war period and especially when the shortage of power was acute, he laboured incessantly with a cheerful willingness beyond all praise. The manufacturers of the City are greatly indebted to him for the ingenuity he displayed in limiting substantially the interruptions in their service and their consequent losses. He is now about to proceed to Europe on a well-deserved three months' leave of absence, and your Commissioners wish him all the rewards that such high service entitles him to.

POWER SHORTAGE : A reference to the power shortage with which all are more or less, while some are painfully, familiar, is expedient. The impression—which as a matter of fact was entirely baseless—that the shortage might have been avoided by the exercise of proper foresight, gained a limited credence. The simple and fundamental fact is that it was due to a demand for power that, on occasions, was greatly in excess of the available supply. The excess demand itself was largely the result of war conditions. The special demands occasioned by munitions manufacturing, and the further demands created by the scarcity and costliness of coal which diminished the supply and raised the price of competing power, combined to make abnormal demands on Niagara Hydro-Electric power. Generating stations cannot be built overnight and the result was an inevitable shortage which while severely felt by many, could not have been avoided by any one under the controlling circumstances of the time.



Your Commissioners understand that the power at present available at Niagara Falls for distribution to the Municipalities is approximately 185,000 H.P.; that the Provincial Commission is supplying approximately 40,000 H.P. to individual consumers in Ontario; that it is exporting approximately 50,000 H.P. to the United States under contracts entered into by the Ontario Power Company prior to the acquisition thereof by the Provincial Commission; that in all probability the Queenston-Chippawa development, which was commenced by the Provincial Commission in 1917, will by the fall of 1921 have a first instalment of 100,000 H.P. available for commercial use; and that no appreciable increase in the allotment of power to the participating municipalities can be expected until the Queenston-Chippawa development reaches the stage indicated. It therefore appears probable that the power shortage during the coming winter will be at least as severe as during the last winter. In cases where an uninterrupted supply is of paramount importance it would seem that the only way to secure such in the meantime is by making some arrangement for auxiliary power. It is unnecessary to say that your Commissioners will at all times do the best that can be done with the resources at their disposal but they cannot deliver power that they cannot obtain. It is beyond the present power of man to prevent the interruptions to a regular supply that are caused by changing winds, accumulations of ice, and other contingencies affecting the generating stations and the transmission plant alike.

The lesson—so far as the Toronto System is concerned—from the shortage, actual and prospective, and from unavoidable interruptions in the service seems to be that a powerful steam reserve plant is a necessity. Such a reserve plant would furnish, up to the limit of its capacity, substitutionary power in times of stoppage and supplementary power in times of shortage. With the present high cost of construction and of coal it is obvious that both capital and operating costs of such a plant would be high and that corresponding increases in the rates would be necessary. The matter however is of such vital importance to manufacturers and other users of power that the additional cost would be little compared with the losses it would avoid.

Another conclusion to which the shortage points is that the government should acquire and develop, prudently by degrees, and on just terms, the principal power sources and power plants of the Province. It is unquestionable that the Governmental and Municipal Hydro-Electric movement in the Province of Ontario restrains private ownership from developing such sources and plants to their fullest service efficiency. The dependence of the commercial, industrial, and related interests of the Province on ample supplies of power at the lowest practicable cost fully justifies such a policy. It is further necessitated by the present absolute dependence of the Province on the United States for coal supplies. While the policy of the American government and the attitude of the American people have, in this matter, been just

and considerate in the past, the United States has its own industrial, political, and other difficulties to contend with. These difficulties cannot fail to cause a justifiable apprehension that a stoppage of sufficient supplies for the needs of the Province is a possibility fraught with most serious consequences to the economic life of the Province and to the friendly relations between the respective countries. It should therefore be the policy of both the Dominion and the Ontario Governments to free the important interests at stake, as much as possible, from all such risks. The two countries are dependent on each other in respect of many vital matters. An absolute embargo by either on the export of necessities to the other, except in times of great justifying national emergencies, would be inconsistent with the friendly relations of the past, the ideals of both American and Canadian peoples, and fatal to future amity. A policy of reprisals which would be the inevitable consequence of an unnecessary embargo would inflict serious commercial injury on both peoples apart altogether from other consequences. Our sources of economic independence should be developed to the full for reasons both of national pride and of national wellbeing.

Further, under competent guidance, the investments involved in such a policy would be self-sustaining, and could be made a source of public revenue, while in addition they would greatly increase the producing and competing capacity of the people of Ontario—two of the great necessities of post-war times.

The value of Hydro-Electric energy is illustrated in some measure by comparing the quantity of bituminous coal imported into the City of Toronto in the year 1919 with the quantity that would have been required had Hydro power not been available. The official figures indicate that in the year 1919, 851,481 tons of bituminous coal were brought into Toronto. To generate from steam the power purchased by the Toronto Hydro-Electric system from the Provincial Commission during that year would have required approximately 358,000 additional tons of coal. The cost of this coal would have been more than three times the amount paid for the power taken from the Hydro-Electric Power Commission of Ontario. The quantity of coal that would be required to generate the total quantity of power sold by the Toronto Hydro-Electric System to its customers since the beginning of its operations would be over 2,000,000 tons, and the cost, based on prevailing prices from year to year, is estimated at over \$10,000,000 as against a cost for the electric current taken from the Provincial Commission of approximately \$4,100,000. In addition to the great saving so effected by the substitutionary use of electric power, this has had during the last year, an appreciable effect in relieving the adverse exchange situation, while it has also been of material value in relieving overtaxed transportation facilities, and releasing coal for heating purposes. When the coal savings arising from the whole Niagara water power developments are taken into account the resultant benefits of the kinds indicated are enormous.



FLAT RATES : The proposal has been made in some quarters that power should be delivered to all municipalities within the Niagara zone by the Hydro-Electric Power Commission of Ontario at the same rate. While it is improbable that this proposal will be seriously entertained in responsible quarters it is perhaps worth while pointing out that the delivery of electricity, involving, as it does, a cost varying with the distance traversed and the quantity transmitted, resolves the proposal into a plan to subsidise consumers in certain districts at the expense of those in other districts, and as such it is not likely to be received with favour where a proper sense of commercial independence, rectitude and fair play prevails. Further, the entire Municipal Hydro System is founded upon a number of binding contracts between the separate participating municipalities and the Provincial Commission. In these contracts the basis of charge is clearly set out, and the investments of the participating municipalities have been made in good faith on the strength thereof. To treat these contracts as "Scraps of Paper" would provoke most serious litigation, would destroy all faith in, and ultimately would wreck the movement beyond hope of repair.

CONCLUSION : Your Commissioners with your full approval and with the full support of public sentiment authorized during the war period a number of Patriotic subscriptions and special grants to employees with the colors and to their dependents. These subscriptions and grants amounted to a total of \$83,450.04, of which \$72,028.82 was paid to dependents of employees with the colors.

Now however, the war is over ! The great arch-enemy of freedom and the deadly enemy of the British Empire has been utterly overthrown. Let humble thanks be given ! The most stupendous catastrophic drama of human history has engaged the world's stage during the past six years. The events are still too close at hand to be seen in their full magnitude, and the terrible consequences in their final relentless expression have not yet sufficiently developed to be appreciated aright. The highest pinnacles of sacrifice have been scaled by a dauntless heroism never surpassed in the history of the world. The lowest depths of infamy have also been sounded. We may try to forget the infamy but the indelible proofs of the unimaginable suffering it begat, remain among us, and forbid—and rightly forbid—that we should forget it. But while remembering it as a protection against the foolish, insidious, and fatal optimism that would gamble with the rights, liberties and dignities of free peoples, let us turn with concentration of purpose to the new duties before us. The call of the day is for reconstruction and repair. The unity of purpose that animated the people of this country, in common with their kith and kin across the seas and with their gallant Allies in the high but tragic duties of the War, should no less animate them in the tasks of peace. The legacies of the War in the way of material burdens are heavy ; but the recuperative power of the

country is great and adequate. Class strife must cease ; co-operation and goodwill must take its place ; thrift and honest toil must reassert their power if the future of the country is to be assured. Governmental and Municipal no less than private economy must be the order of the day. Extravagant public loans and projects should be anathema. Only thus will our duty to ourselves and our higher duty to posterity be discharged. The real spirit of the people of the Dominion has shown itself in many crises. Your Commissioners believe that that spirit will not be invoked in vain as we turn once more to the paths of peace. The high duty and privilege of caring adequately for the blighted lives among us—the heritage of war—must ever remain in the forefront as a sacred task—a first charge upon the hearts and the possessions of all.

Respectfully submitted,

P. W. ELLIS,  
*Chairman*

T. L. CHURCH,  
*Mayor*

GEO. WRIGHT,  
*Commissioner*



YONGE ST. OFFICE *Decorated  
in honor of the Visit of  
H.R.H. the PRINCE of WALES*



YONGE ST. OFFICE  
*Night View of Decorations*



# CERTIFICATE OF AUDITOR

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Toronto, June 8th, 1920

*To the Toronto Electric Commissioners :—*

I have completed the audit of the accounts of the Toronto Hydro-Electric System for the year ended 31st December, 1919, and certify that the attached Balance Sheet is properly drawn up, and, in my opinion, sets forth the financial position of the System, as shown by the books as at 31st December, 1919.

The item of \$129,125.46 for the Hydro-Electric Power Commission of Ontario, which is included among the Reserves, has the qualities of a Surplus as well as of a Reserve.

I have examined the Accounts Receivable and have verified the Cash Balances. Inventories for materials on hand have been produced and certified by the proper officials.

(Signed) SHOLTO C. SCOTT, *Auditor*

*Chartered Accountant.*

# Toronto Hydro - Electric System—

## ASSETS

### Fixed Assets

Lands, Buildings, Transmission System, Sub-Station Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department and Miscellaneous Equipment, Miscellaneous Construction and Equipment Expenditures, and Exhibition Construction and Equipment .....	\$9,555,450.95
Leasehold Premises and Improvements.....	36,609.11
	<hr/> \$9,592,060.06
Debenture Discount and Expenses (less Debenture Premium) .....	629,764.53
	<hr/> \$10,221,824.59

*NOTE :—(Provision for writing off Debenture Discount  
and Expenses at the maturity of the respective  
Debenture issues is secured by the annual charges  
against the earnings in respect of Sinking Fund.)*



# Balance Sheet as at 31st December, 1919

## LIABILITIES

### Capital Account

Corporation of City of Toronto :—

#### Sinking Fund Debentures :

By-Law No. 5036, Cash Advanced.....	\$ 2,240,124.55	
Debenture Discount and Expenses.....	509,875.45	\$ 2,750,000.00

By-Law No. 5918, Cash Advanced.....	\$ 1,816,774.89	
Debenture Discount and Expenses.....	383,225.11	\$ 2,200,000.00

By-Law No. 6674, Cash Advanced.....	\$ 641,335.00	
Debenture Discount and Expenses.....	58,665.00	\$ 700,000.00

By-Law No. 7176, Cash Advanced.....	\$ 906,700.00	
Debenture Discount and Expenses.....	93,300.00	\$ 1,000,000.00

#### Instalment Debentures :

By-Laws Nos. 7584 and 7642, Cash Advanced.....	\$ 1,243,469.76	
Debenture Discount and Expenses.....	4,530.24	

\$ 1,248,000.00

Deduct: Amount redeemed to date under terms of By-Law.....	\$ 67,365.50	\$ 1,180,634.50
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By-Law No. 7875, Cash Advanced.....	\$ 701,150.40	
Debenture Discount and Expenses.....	34,849.60	

\$ 736,000.00

Deduct: Amount redeemed to date under terms of By-Law.....	\$ 43,000.00	\$ 693,000.00
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By-Laws Nos. 7792 and 8052, Cash Advanced.....	\$ 655,395.00	
Deduct: Debenture Premium.....	5,395.00	

\$ 650,000.00

Deduct: Amount redeemed to date under terms of By-Law.....	\$ 19,000.00	\$ 631,000.00
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Total Bonded Debt.....	\$ 9,154,634.50
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Less Funds in City Treasurer's hands for Redemption.....	910,100.61
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Net Bonded Debt.....	\$ 8,244,533.89
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## Toronto Hydro-Electric System—Balance

### Current Assets

Stores on hand and apparatus on Loan less reserve for Contingencies.....	\$ 492,408.14	
Accounts Receivable (including Orders in Progress) less Reserve for Estimated losses (\$38,193.27).....	378,857.05	
Cash on Hand and in Bank.....	170,495.78	
Cash on Deposit with Trust Companies and accrued interest.....	304,695.20	\$1,346,456.17
Deferred Charges to future operations.....		23,513.54

\$11,591,794.30

# Sheet as at 31st December, 1919 (cont.)

## Current Liabilities

Corporation of City of Toronto :—

Sinking Fund Instalments accrued.....	\$	22,877.61
Serial Debentures Instalments accrued.....		33,868.60
Accounts Payable and accrued charges.....		227,648.60

Total Current Liabilities.....	\$	284,394.81
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## Reserves

For Depreciation of General Assets.....	\$	1,591,533.25	
For Depreciation of Leasehold Property.....		44,167.95	
For Workmen's Compensation and Public Liability.....		45,755.84	
For Contingencies.....		92,538.37	
For Sinking Fund.....		910,100.61	
By Redemption of Serial Debentures.....		129,365.50	
For Exchange on Payment of Debentures and Deben- ture Interest.....		18,831.33	
From Hydro-Electric Power Commission of Ontario....		129,125.46	\$2,961,418.31
Surplus.....			101,447.29
			<u>\$11,591,794.30</u>

# Toronto Hydro - Electric System—Revenue

## SECTION I.: SHOWING NET INCOME

<u>Charges</u>	
<u>Dr.</u>	
To Cost of Electric Current at Schedule rate (together with supplementary charge of \$106,854.51), .....	\$ 812,867.47
To Expenses of Operation and Management, including Repairs, Maintenance and Accrued Charges, Provision for Proportion of Special Depreciation of Leasehold Buildings and Improvements (\$20,122.28) and Reserve for Doubtful Accounts Receivable.....	764,255.03 \$ 1,577,122.50
To Net Income available for Fixed Charges Carried Forward to Section II.....	927,635.81
	<u>\$2,504,758.31</u>

## SECTION II.: SHOWING DIS-

To Interest.....	\$ 403,935.21
To Depreciation.....	340,427.05
To Exchange on Payment of Debentures and Debenture Interest.....	18,831.33
To Sinking Funds :—	
Under City By-Law No. 5036.....	\$ 36,471.54
Under City By-Law No. 5918.....	34,255.92
Under City By-Law No. 6674.....	9,283.67
Under City By-Law No. 7176.....	13,262.38
	<u>\$93,273.51</u>
To Redemption Funds :—	
Under City By-Laws No. 7584 and No. 7642.....	\$ 24,148.21
Under City By-Law No. 7875.....	22,500.00
Under City By-Laws No. 8052 and No. 7999.....	19,500.00
Under Agreement with Provincial Hydro-Electric Power Commission <i>re</i> supply outside City.....	869.18 160,290.90
To Net Income carried to Surplus Account.....	4,151.32
	<u>\$ 927,635.81</u>

Account for the Year Ended 31st December, 1919

FROM OPERATIONS OF YEAR

<u>Cr.</u>	<u>Income</u>
By Sale of Current for :—	
Lighting .....	\$ 946,313.53
Power .....	1,120,944.51
Street Lighting .....	322,773.70
Exhibition .....	17,924.21
Other Municipalities .....	5,585.04
	<hr/>
By Income from sundry other sources .....	\$ 2,413,540.99
	91,217.32
	<hr/>
	<hr/>
	\$2,504,758.31
	<hr/>
	<hr/>

POSITION OF NET INCOME

By Net Income available for Fixed Charges brought forward from Section I.....	\$ 927,635.81
	<hr/>
	<hr/>
	<hr/>
	\$ 927,635.81
	<hr/>
	<hr/>



## Toronto Hydro-Electric System—

To Balance Carried Forward.....\$ 101,447.29

\$ 101,447.29

## Surplus as at 31st December, 1919

By Balance Brought Forward from 1918.....	\$ 63,977.59
By Adjustments of Reserves <i>re</i> Power Accounts (1918).....	33,318.38
By Net Income from Operations of Year 1919.....	4,151.32
	<hr/>
	\$ 101,447.29
	<hr/>



IMPROVED DOWN TOWN. *500 Watt Gas Filled*



— FIVE LIGHT CLUSTER. *100 Watt per lamp* —



STANDARD OVERHEAD (Concrete pole) *100 Watt*



LOCAL IMPROVEMENT PLAN. — UNDERGROUND



UNIVERSITY AVE. (Concrete pole) *250 Watt Gas-filled*

226-8 Yonge Street,  
Toronto, 7th July, 1920.

## General Manager's Annual Report

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*To The Toronto Electric Commissioners :*

GENTLEMEN :

Herewith I beg to report on the operations of the Toronto Hydro-Electric System for the year ended 31st December, 1919,—the ninth year of its existence. In spite of the decreased output and the increased wages and other costs, the year's working shows a net surplus of \$4,151.32 after providing for Interest charges on all Capital expended, Sinking Fund to retire all Debentures at maturity, and in addition the full contribution to a Depreciation Fund sufficient to replace all the assets of the System at the end of their useful life.

The two outstanding features of the year have been,—first, the change in conditions following the cessation of hostilities toward the end of the preceding year, and secondly, the Power Shortage. The connected load of the System's Consumers engaged in producing munitions and war supplies was about 50,000 Horse Power, the demand for which ceased suddenly. Realizing that the supply of power available for the use of the System was bound to be limited until the Chippawa development was completed, the System did not feel justified in endeavouring to secure a large volume of new business, and consequently no business-getting campaign was inaugurated as would have been the case had there been a surplus of power available in the near future. The course adopted, while having a very adverse effect on the financial position, particularly during the first half of the year, was, from the Consumers' standpoint, more than justified by the Power Shortage which commenced to be apparent in the early winter, and became very serious when aggravated by the ice troubles in the Plants at the Falls which were abnormally severe later in the winter.

The effect of the cessation of the demand for munitions and war supplies is seen very clearly in the System's sales of electrical energy for power purposes which during the whole year show a decrease of about 47% as compared with those of

the preceding year. This decrease was even more marked during the earlier months before any of this demand was diverted to peace-time business. The total K.W. Hrs. sold for all purposes show a decrease of approximately 22% for the whole year, as compared with the preceding year.

Considerable criticism has been made in certain quarters to the effect that the System had oversold, but this can be readily disposed of by an examination of the peak load on which the System paid during the year now under review and the two preceding, which were as follows :—

<i>Year</i>	<i>Sustained 20 minute peak</i>
1917 (December).....	58,714.5 H.P.
1918 (September).....	61,035.6 H.P.
1919 (November).....	59,618 H.P.

As a matter of fact the power allotted in October, 1919, for the use of the System was only 57,000 H.P. and even this limited allotment was much reduced when breakdowns or ice troubles were experienced.

#### GENERAL EXTENSIONS

Under the conditions that existed comparatively little was done in the way of extending the System. The equipment of the extension of Duncan St. and Junction Substations and a Transformer House on O'Hara Ave. was practically completed also various comparatively small jobs done to consolidate the System which need no special mention.

#### BRITISH FORGINGS CONTRACT

An arrangement was concluded as from 1st July, 1919, whereby the Imperial Munitions Board and the System were relieved from any further liability under the contract for the British Forgings Plant at Ashbridge's Bay.

#### APPLIANCE DEPARTMENT

The sales of appliances for the utilization of electrical energy in the home show a very gratifying increase in spite of the Power Shortage handicap, which prevented the System from pushing the sale of the heavier current consuming devices.

The total sales for the year show an increase of over 60%, which (particularly having regard to the handicap above referred to) tends to show that these appliances are now coming to be regarded as necessities in the home and no longer considered luxuries. It is hard to overestimate the possibilities in this direction when conditions are such as to warrant an active campaign.



### INSURANCE

The policy of carrying the System's Workmen's Compensation and Public Liability Insurance has been continued. The fund set aside for this purpose,—on the basis of the rate charged if placed outside—shows a credit balance of \$47,600.89 as at 31st December, 1919, after debiting all expenses. This represents the result of three years' operation.

### CURVES

The usual curves are appended hereto, but call for no special comment.

It is with a great deal of pleasure that I again record sincere appreciation of the valuable services rendered by the Staff, to whose efforts, combined with the splendid support of the Consumers and the Public, is largely due the measure of success attained in the past. Our thanks are also due to those officials of the City who have so heartily co-operated with the System.

H. H. COUZENS,  
*General Manager.*



DIAGRAM SHOWING THE COMPARATIVE GROWTH OF THE REVENUE OBTAINED FROM THE DIFFERENT CLASSES OF SERVICE YEAR BY YEAR.

NOTE: REDUCTIONS IN THE RATES CHARGED FOR ELECTRIC SERVICE WERE MADE AT THE BEGINNING OF THE YEAR 1915, AND ALSO AT THE BEGINNING OF THE YEAR 1916.

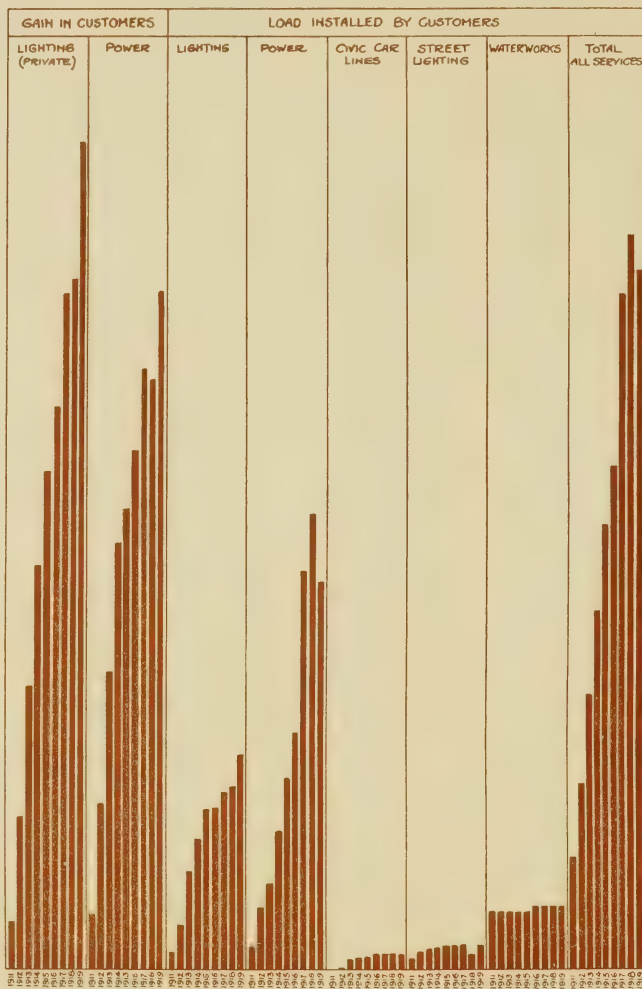
TORONTO HYDRO-ELECTRIC SYSTEM  
1919 REPORT



CAPITAL EXPENDITURE, PEAK LOAD, REVENUE (PER K.W.HR. SOLD)  
AND SURPLUS YEAR BY YEAR.

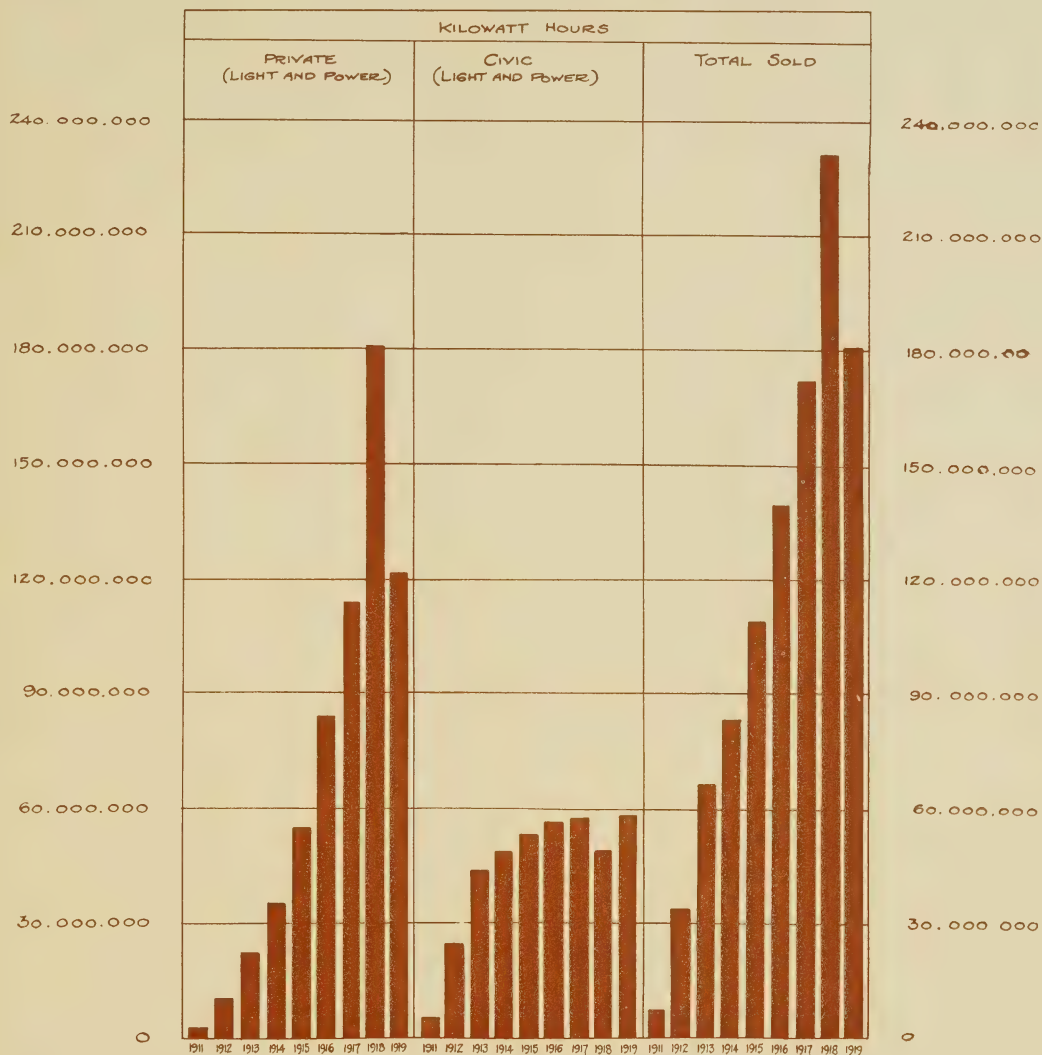
NOTE: REDUCTIONS IN THE RATES CHARGED  
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THE BEGINNING OF THE YEAR 1915, AND  
ALSO AT THE BEGINNING OF THE YEAR 1916.

TORONTO HYDRO-ELECTRIC SYSTEM  
1919 REPORT



GROWTH OF BUSINESS YEAR BY YEAR FOR VARIOUS  
CLASSES OF SERVICE.

TORONTO HYDRO-ELECTRIC SYSTEM  
1919 REPORT



### SALE OF ELECTRICAL ENERGY

TORONTO HYDRO-ELECTRIC SYSTEM  
1919 REPORT









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Toronto Electric Commissioners

Government  
Publications

(The TORONTO  
HYDRO ELECTRIC  
SYSTEM)

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TENTH  
ANNUAL REPORT  
1920





# THE TORONTO HYDRO-ELECTRIC SYSTEM

*With the compliments of  
The Commissioners*

THE TENTH ANNUAL REPORT  
OF THE  
TORONTO ELECTRIC  
COMMISSIONERS  
1920



## Commissioners' Report

*To His Worship the Mayor and the Members of the Council  
of the Corporation of the City of Toronto.*

TORONTO

Gentlemen:—

Your Commissioners beg to submit their Tenth Annual Report on the operations of the Toronto Hydro-Electric System for the year ended 31st December, 1920, accompanied by the Revenue Account, Balance Sheet, and Subsidiary Statements. The Accounts have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended thereto.

**Financial Position as at 31st December, 1920**      The operations for the year 1920 have resulted as follows:—

The gross income amounted to the sum of .....	\$3,150,846.57
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of .....	1,963,576.22
Leaving a surplus of income of operating account of .....	\$1,187,270.35
Interest, Depreciation, Exchange, Taxes, Sinking Funds and Debenture retirals absorbed the sum of .....	1,064,542.71
Leaving a surplus of net income for the year of .....	\$ 122,727.64

Had the enterprise been conducted as a commercial corporation with perpetual share capital the net earnings for the year would have been shown at the amount of \$735,663.70, that being the sum of the interest payments, the sinking fund appropriations, the debenture retirals, and the net surplus. This would be the equivalent of a dividend at the rate of approximately 8.7 per cent for the year on the average amount of capital invested.

The net funded debt at 31st December 1920 less sinking funds in the City Treasurer's hands amounted to the sum of \$8,470,562.54, all of which will be promptly paid at maturity by the annual retirals of the serial debentures and by the operation of the sinking funds applicable to the long term debentures.

The total amount of the unfunded debt at the same date was \$487,587.47 against liquid asset resources of \$1,679,615.02. Of the latter \$639,014.52 represented cash on hand and on deposit.

Surplus funds, representing profits after meeting all operating costs and exchange losses, had been accumulated at the same date to the amount of over four million dollars as follows, viz:—

(1)	A Reserve Fund for the replacement in the future of Buildings, Plant, and General Equipment as such wear out, of....	\$1,988,989.59
(2)	Reserve Funds for general contingencies, for loss on American exchange, and for contingent liabilities arising out of the Workmen's Compensation Act, of .....	242,947.31
(3)	Reserve Funds held by the Provincial Hydro-Electric Commission on account of the Toronto System, of .....	129,125.46
(4)	Sinking Funds held by the City Treasurer for the retiral at maturity of Debentures, and interest thereon, of .....	1,093,334.77
(5)	Serial Debentures retired, thereby creating additional equity in underlying property, of .....	211,102.69
(6)	Reserve for new premises .....	100,000.00
(7)	Additional free Surplus of.....	129,355.60
(8)	Sinking fund Equity in Hydro-Electric Power Commission of Ontario System Accounts .....	188,243.53
<i>Total Reserves as per Balance Sheet.....</i>		<u>\$4,083,098.95</u>
(9)	LESS:	
(a)	The Reserve for Depreciation of leasehold property for which no value is held \$35,180.23	
(b)	The Reserve for loss on American Exchange which was an actual incurred liability at the end of 1920.....	44,819.01
		<u>79,999.24</u>
<i>Net Reserves of the Nature of Surplus.....</i>		<u><u>\$4,003,099.71</u></u>

This striking result has been accomplished in nine years after operating on a scale of consumers' rates, which, while materially lower at the beginning than that of the System's principal competitor was subsequently substantially reduced—twice as to general rates and street lighting rates,—and despite the recent increase is

still lower than before the war; after charging all repairs and maintenance expenditures against income; after paying on the whole a higher rate of interest on the Debenture Capital than was anticipated at the inception of the enterprise—interest that may be regarded as the equivalent of a reasonable dividend on the like capital of a like enterprise privately owned; after establishing voluntarily a generous scale of compensation for all employees and paying the still higher rates that by Conciliation Boards and otherwise have been added from time to time to the original voluntary scale; and after making liberal subscriptions to Patriotic objects during the war, and liberal grants to employees who went to the Front and to their dependents. In this connection it is worthy of special note that no charge has been made against Capital Expenditure at any time that should have been met out of Income. These reserve funds therefore represent the accumulations of bona fide surpluses after meeting out of Income every element of operating expense properly attributable thereto.

<b>Operations of 1920—</b>	Electrical energy purchased from the Hydro-Electric Power Commission of Ontario during the year cost \$974,827.92 or
<b>Power Cost</b>	31.0 per cent. of the gross income, against \$812,867.47 for the preceding year or 32.5 per cent. of the gross income of that year.

At the governing rate of \$14.50 per H.P. fixed by the Provincial Commission plus certain special charges, the charge for the year would have been \$836,556.37 or only 26.5 per cent. of the gross income. After the close of the year's operations however, the Provincial Commission advised the Commissioners that the cost of the power supplied them during the year was \$138,271.55 greater than had been charged under the rate aforesaid, and they directed your Commissioners to assume this deficiency, thereby raising the cost for the year to the sum of \$974,827.92 as stated above, or \$17.44 per H.P. instead of the standard rate of \$14.50 per H.P.

<b>Operating Expenses</b>	The expenses of operation and management amount to \$988,748.30 or 31.4 per cent., of the gross income against \$764,255.03 for the preceding year or 30.5 per cent. of the gross income of that year.
---------------------------	--

<b>Gross Income and Output</b>	The gross income increased by 25.8 per cent. over that of 1919: and the commercial income by 31.2 per cent. over that of 1919.
	The commercial income for the year amounted to 76.1 per cent. of the total as compared with 72.8 per cent. in 1919, 78 per cent. in 1918, 71.8 per cent in 1917, 67.0 per cent. in 1916, 66.4 per cent. in 1915, 63.9 per cent. in 1914, and 59.05 per cent. in 1913.



## Growth of the System

The following tables indicate the growth of the System during the period of its operation under competitive conditions:—

Year	Total Revenue	Operation and Maintenance Cost Exclusive of Power	% of Revenue	Power Cost	% of Revenue	Total Fixed Charges	Fixed Charges Cents Per K.W.Hr. Sold
1912	\$ 726,763.55	\$306,236.07	42.2	\$194,328.19	26.8	\$212,643.88	.605
1913	1,159,339.71	425,230.75	36.7	255,986.26	22.1	443,546.83	.683
1914	1,501,291.47	550,121.61	36.7	324,236.97	21.6	556,513.55	.671
1915	1,620,187.60	548,378.75	33.8	430,830.00	26.6	624,067.78	.670
1916	1,706,177.00	542,953.62	31.9	529,180.54	31.0	615,646.03	.443
1917	2,049,382.98	609,552.46	29.7	684,470.50	33.4	720,892.96	.420
1918	2,353,443.93	661,361.83	28.1	824,251.36	35.1	846,163.75	.367
1919	2,504,758.31	764,255.03	30.5	812,867.47	32.4	904,653.16	.501
1920	3,150,846.57	988,748.30	31.4	974,827.92	30.9	984,157.06	.458

The important place which the Toronto System has filled from year to year in the Niagara Power zone as a whole is shown in a table based on figures given in the Annual Reports of the Hydro-Electric Power Commission of Ontario,

Year	Total H. P. Niagara District	H. P. Toronto only	% of Total	Total Population of Niagara District supplied with power	Population of Toronto †	% of Total
1912	Oct. 27,425	13,036	47.5	649,938	417,250	64.3
1913	" 37,670	17,998	47.8	735,078	445,575	60.6
1914	Dec. 59,746	28,754	48.1	843,245	470,144	55.7
1915	" 87,671	40,180	45.8	912,583	463,705	50.8
1916	" 112,224	47,165	42.0	948,518	460,526	48.5
1917	" 134,801	56,561	41.9	956,918	473,829	49.6
1918	" 133,010	55,965	42.1	967,145	489,681	50.7
*1919	" 153,724	57,795	37.6	1,049,340	499,278	47.7
*1920	" 149,375	62,339	41.8	1,191,736	512,812	43.1

\*Power Shortage.

†As returned by assessors.

Further items of interest are tabulated below:

End of	Meters in Use	Street Lights in Use	Kilowatt Hours Sold	Connected Load H.P.	Peak Load H.P.
1912	13,858	33,824	35,176,548	46,296	17,198
1913	24,999	38,944	65,052,951	68,461	22,520
1914	33,976	40,596	82,927,015	90,162	28,753
1915	39,284	43,411	109,501,981	111,413	40,180
1916	44,013	45,212	139,003,756	125,840	47,165
1917	50,461	45,841	171,691,213	169,818	56,662
*1918	53,598	29,527	230,413,561	184,930	60,154
*1919	63,762	45,091	180,609,938	176,351	59,618
*1920	71,447	45,472	214,908,545	194,800	62,339

\*Owing to the shortage of power during 1918, 1919 and 1920 it was necessary to stop canvassing for new business and to curtail street lighting.

**Value of  
Hydro-Electric  
Power**

It has been estimated by the Officers of your Commission that the rates for residential and commercial light and power that have been charged during the past nine years have saved its customers not less than approximately \$21,000,000 of the aggregate they would have paid for the same amount of electrical energy had the normal rates that were in force in this city at the inception of the enterprise been continued.

The value of Hydro-Electric energy is illustrated by a comparison of the quantity of bituminous coal imported into the City of Toronto in the year 1920 with the quantity that would have been required had Hydro power not been available. The official figures indicate that in the year 1920, 1,256,584 tons of bituminous coal were brought into Toronto. To generate from steam the power purchased by the Toronto Hydro-Electric System from the Provincial Commission during that year would have required approximately 424,000 additional tons of coal. The cost of this coal would have been five times the amount paid for the power taken from the Hydro-Electric Power Commission of Ontario. The quantity of coal that would have been required to generate the total quantity of power sold by the Toronto Hydro-Electric System to its customers since the beginning of its operations would have been over 2,400,000 tons, and the cost, based on prevailing prices from year to year, is estimated at over \$15,000,000 as against a cost for the electric current taken from the Provincial Commission of approximately \$5,100,100. In addition to the great saving so effected by the substitutionary use of electric power, this has had during the last two years, an appreciable effect in relieving the adverse exchange situation, while it has also been of material value in relieving overtaxed transportation facilities, and releasing coal for heating purposes. When the coal savings arising from the whole Niagara water power developments are taken into account the resultant benefits of the kinds indicated are enormous.

**Cost of Power  
to Toronto**

Comparisons are occasionally made between the cost of power to Toronto and the cost to other Municipalities in the Niagara Power zone. It should not be overlooked that Toronto is subject to heavy items of expense peculiar to itself. The City covers an area too wide to be served from the single station built by the Provincial Commission, and your Commissioners have had to build several very large sub-stations and to provide many miles of high voltage distribution, which for the greater part requires to be carried underground,—a source of expense almost unknown to the smaller municipalities. For underground distribution alone the Toronto Hydro-Electric System has spent \$989,358.85 while the other municipalities in the Niagara zone have together spent only \$194,558.50. Overhead lines, where permitted, must be erected in streets already crowded with existing lines. The expenditure of the Toronto Hydro-Electric System on local distributing plant at the end of the year 1920 was

approximately \$196.70 per average horse power purchased, as against \$120.80 expended as a whole by the other municipalities in the Niagara zone. The effect of the heavy investment in such plant in increasing the final cost of power is indicated in the following table compiled from figures supplied by the Hydro-Electric Power Commission of Ontario for the year 1920.

	TORONTO	Cost per Average H. P. Purchased	All other municipalities in the Niagara zone	Cost Per Average H.P. Purchased
Average Horse Power purchased .....	56,620.3 H.P.		93,370.9 H.P.	
Amount paid to Hydro-Electric Power Commission of Ontario for power purchased .....	\$ 974,827.92	\$17.21	\$2,369,919.57	\$25.38
Debenture Charges, Interest and investment and depreciation on local plant and equipment .....	1,034,248.46	18.27	920,341.59	9.86
Total of above.....	\$2,009,076.38		\$3,290,261.16	
Cost per Horse Power, including fixed charges on local distribution equipment .....		\$35.48		\$35.24

It is thus evident that the cost of local distribution equipment results in the final cost of power being actually higher in Toronto than in the other municipalities as a whole.

Nor is this all. The above figures are confined to cost of power purchased, debenture charges, interest and depreciation, and take no account of operating charges. It costs more to live in a large city than in a small town; and the higher cost of living is reflected in the wages and salaries of those employed in every capacity by the Toronto Hydro-Electric System. The greater amount of plant and equipment required per horse power involves a greater number of employees at these high wages for its operation and maintenance. There is a loss of power in a double voltage transformation, and in the feeding of a direct current system. The consequences attendant upon a breakdown of electric service in a large city are so much more serious than in a small town that no chances can be taken; a full staff of highly trained engineers and skilled mechanics and large supplies of emergency material must be kept up. On many occasions the Toronto Hydro-Electric System has been of the greatest assistance to other municipalities by furnishing the services of skilled mechanics and loaning apparatus and material that could be procured nowhere else, and thus putting an end to most serious interruptions. This assistance is gladly given when required; but there can be no reciprocation, and the

Toronto System must be prepared at all times to care for its own emergencies. Even in the item of taxes your Commissioners are at a disadvantage; for taxes are based upon the value of the land used by the System, which owing to the high cost of city property represents a proportionally larger investment than in other places.

Your Commissioners, while regretting the agitation to which the idea has given rise, take pride in the efficiency and economy which, despite such handicaps, have engendered in the public mind the idea that Toronto is peculiarly favored in respect of Hydro Power.

### **Supply of Power**

In the Autumn of 1920 the supply of power was less and the demand greater than ever before, and during the months of October and November severe shortages were of almost daily occurrence. The situation was, however, greatly relieved by the outcome of negotiations looking to the purchase of the competing Power Company, which provided for the Electrical Development Company of Ontario turning over to the Hydro-Electric Power Commission of Ontario the output of a generating unit which the Company's rights did not permit it to use for any other purpose, and thus rendered available a limited additional supply of power, and with the approaching completion of the Chippawa-Queenston Power Plant, the fear of shortage appears to be finally banished. It is unlikely that in the near future a sudden demand for power such as caused the shortage in recent years will recur.

### **Increase in Rates**

The mounting cost of labor and material made it difficult for your Commissioners to maintain the low rates for electric service reached by the successive reductions of 1915 and 1916. By the strictest economy, aided by phenomenal extension of business and consequent unit decrease of overhead charges it was possible to do so until August 1st, 1920 but on that date it became necessary for the reason stated to increase the rates.

While higher prices are welcome to none, the average charge for current since the new rates were put in force is still approximately 15 per cent. lower than the average charge of the System in the year 1914.

### **Present Market for Power**

During the year 1920, the consumption of power in each month was in excess of the consumption during the corresponding month of the preceding year; and with the exception of the months of February and March the consumption of power has been greater during each of the first five months of 1921 than it was during the corresponding month of 1920. The average horse power taken by the System for the first five months of 1921 has been greater than the average horse power taken during the



first five months of 1920. This continued growth in a period of adverse business conditions indicates the great increase of demand that may be expected when the present depression has run its course.

### **Labor Conditions**

During the early part of the year 1920 a Board of Investigation and Conciliation was established by the Department of Labor, and as a result of the award made by this Board the wages of linemen, operators and other wage earning employees of the System were increased approximately 15 per cent. Between the 1st of July 1910 and the 1st of July 1920, a period of ten years, no less than nine increases in wages—the most of them being general increases—have been granted to the employees of the System operated by your Commissioners, under which the wages of first-class linemen e.g. have been raised from twenty-seven and seven-ninths cents per hour to seventy-eight cents per hour, thus making the latter rate two hundred and eighty-one per cent. of the initial rate. During this period many other advantages and privileges have been granted to the employees, with the effect of greatly raising the scale of comfort attached to their working conditions as well as that attached to their family and general social conditions.

The policy of your Commissioners toward their employees is and has been from the inception of the undertaking one of broad and generous treatment. They have established wages and working conditions on a level that could not possibly have been maintained had the undertaking been carried on under ordinary competitive business conditions. The welfare of the employees from the "human" point of view has ever been kept in mind. Permanent employment at the highest justifiable level of compensation, freed from the risks of irregularity and fluctuations that inhere in competitive business at large, has been and will continue to be the aim of your Commissioners. The record of their administration is an open book that proves every claim advanced herein on their behalf. Such a policy, however, calls for reciprocation if the motives that inspire it are not to be strangled. At the present time, the wages paid, in obedience to inflexible world-wide conditions ought to be reduced. The Commissioners, however, do not propose to make reductions unless or until such become absolutely imperative and inescapable.

Notwithstanding these conditions an application was presented in April 1921 by the Canadian Electrical Trades Union, which claimed to represent the employees of the System, for increases of wages and alterations in conditions that would involve further increases of approximately 20 per cent. in the wages paid for actual work done. Your Commissioners protested to the Department of Labor, pointing out that increased rates for light and power had been forced upon the consumers thereof by reason of the increases in wages already given as above set out, that a further increase in wages might necessitate a further increase in consumers'



rates and that an increase in consumers' rates at the present time when prices are falling throughout the whole world would be a grotesque and unjustifiable procedure which could not possibly be imposed upon the community unless it were necessitated by economic conditions beyond the power of your Commissioners to control. Despite the protests of your Commissioners, the Department of Labor established a Board, but subsequently your Commissioners were advised by the Department that the Board so appointed has been discontinued on the advice of the Department of Justice that the provisions of the Industrial Disputes Investigation Act are not applicable to a municipally owned enterprise.

The expense and disorganization laid upon the undertaking conducted by your Commissioners as a consequence of these recurrent applications for the appointment of Boards of Conciliation have been heavy in the extreme. The time of valuable executive officers that is taken up from time to time in the negotiations antecedent to such application, in the extraction and preparation of matter required for submission to the Boards, and in the proceedings before the Boards, has laid a burden upon the undertaking which it is difficult to explain adequately in temperate terms. It is perhaps sufficient to say that such a recurring burden caused in part by extravagant demands, proved by the difference between the claims advanced and the awards made, greatly diminishes the efficiency of the Executive Management, and is incompatible with the rights and interests of the consumers at large. It is therefore satisfactory to learn that the establishment of such Boards will not be repeated in the future.

### Conclusion

Your Commissioners have traced in their various Annual Reports the steps by which the Toronto Hydro-Electric System has in a brief period grown into a great and successful enterprise. The growth of past years is nevertheless insignificant when compared with that which may be expected in the future. The higher cost of all other sources of energy cannot but stimulate the development of the vast water powers of the Province, including especially those of the Niagara and the St. Lawrence Rivers; and the day may ere long come when there will be found on the shores of Lake Ontario one of the most important manufacturing districts in the British Empire. The progress of the past, and the promise of the future for this System amply vindicate the public confidence placed in the Enterprise, and for the accumulating proofs of that confidence your Commissioners are deeply grateful.

Respectfully submitted,

BY THE BOARD OF COMMISSIONERS.

P. W. ELLIS,

*Chairman.*

T. L. CHURCH,

*Mayor.*

GEORGE WRIGHT,

*Commissioner.*



# CERTIFICATE OF AUDITOR

---

Toronto, 1st April 1921.

*To the Toronto Electric Commissioners:—*

I have completed the audit of the accounts of the Toronto Hydro-Electric System for the year ended 31st December 1920, and certify that the attached Balance Sheet is properly drawn up, and, in my opinion, sets forth the financial position of the System, as shown by the books, as at 31st December 1920.

I have examined the Accounts Receivable and have verified the Cash Balances. Inventories for materials and appliances on hand have been produced and were certified by the proper officials.

I have verified the details of the Debenture Debt and of the Sinking Fund with the records in the Treasury Department of the City.

SHOLTO C. SCOTT,

*Auditor.*

# Revenue Account for the Year

## SECTION I: SHOWING NET INCOME

### Charges

To Cost of Electric Current at Schedule rate (together with supplementary charge of \$138,271.55).....	\$974,827.92	
To Expenses of Operation and Management including Repairs, Maintenance and Accrued Charges, Provision for Proportion of Special Depreciation of Leasehold Buildings and Improvements (\$14,151.51) and Reserve for Doubtful Accounts Receivable.....	988,748.30	\$1,963,576.22
To Net Income available for Fixed Charges carried forward to Section II. ....		1,187,270.35
		<u>\$3,150,846.57</u>

## SECTION II: SHOWING DIS-

To Interest .....	\$428,021.74	
To Depreciation .....	371,221.00	
To Exchange on Payment of Debentures and Debenture Interest .....	78,000.00	
To Taxes .....	2,385.65	
To Sinking Funds:—		
Under City By-Law No. 5036.....	36,471.54	
Under City By-Law No. 5918.....	34,255.92	
Under City By-Law No. 6674.....	9,283.67	
Under City By-Law No. 7176.....	13,262.38	
	93,273.51	
To Redemption Funds:—		
Under City By-Laws Nos. 7584 and 7642 .....	25,355.61	
Under City By-Law No. 7865.....	24,000.00	
Under City By-Laws Nos. 8052 and 7999 .....	20,500.00	
Under City By-Law No. 8294.....	14,000.00	
Under City By-Law No. 8295.....	7,000.00	
Under Agreement with Provincial Hydro-Electric Power Commission re supply outside City .....	785.20	184,914.32
To Net Income carried to Surplus Account.....	122,727.64	\$1,187,270.35
		<u>\$1,187,270.35</u>

# Electric System

Ended 31st December 1920

## FROM OPERATIONS OF YEAR

### Income

By Sale of Current for:—	
Lighting .....	\$1,268,677.09
Power .....	1,408,807.03
Street Lighting .....	335,369.74
Exhibition .....	20,811.80
Other Municipalities .....	6,143.78 \$3,039,809.44
By Income from sundry other sources.....	111,037.13

\$3,150,846.57

## POSITION OF NET INCOME

By Net Income available for Fixed Charges..... \$1,187,270.35

\$1,187,270.35



# Toronto Hydro-Electric System Bal

## ASSETS

### Fixed Assets:

Lands, Buildings, Transmission System, Sub-Station Equipment and Feeder System, Distribution System, Municipal Street Lighting System, Line Transformers, Meter Equipment and Devices, General Office, Stores Department, Utility Department and Miscellaneous Equipment, Miscellaneous Construction and Equipment Expenditures, and Exhibition Construction and Equipment .....	\$10,458,806.29	
Leasehold Premises and Improvements .....	19,797.66	
	<u>\$10,478,603.95</u>	
Debenture Discount and Expenses (Less Debenture Premium) .....	659,116.07	\$11,137,720.02
Sinking Fund Equity in Hydro-Electric Power Commission System Accounts .....		188,243.53

### Current Assets:

Stores and Appliances on Hand, less Reserve for Contingencies .....	\$ 629,442.33	
Accounts Receivable (including Orders in Progress) less Reserve for Estimated Losses .....	411,158.17	
Cash on Hand and in Bank .....	231,258.59	
Cash on Deposit with Trust Companies and Accrued Interest .....	407,755.93	\$ 1,679,615.02
Deferred Charges to future operations .....		35,670.39

NOTE:—(Provision for writing off Debenture Discount and Expenses at the maturity of the respective debenture issues is secured by the annual charges against the earnings in respect of Sinking Fund and Serial Debenture Redemptions)

\$13,041,248.96

# Balance Sheet as at 31st December 1920

## Capital Account:

## LIABILITIES

Corporation of City of Toronto:—

Sinking Fund Debentures: Proceeds .....	\$5,612,241.43	
Debenture Discount and Expenses .....	1,037,758.57	\$ 6,650,000.00
Serial Debentures: Proceeds .....	\$3,060,541.94	
Debenture Discount and Expenses .....	64,458.06	
	<u>\$3,125,000.00</u>	
Deduct: Amount redeemed to date under terms of		
By-laws .....	211,102.69	2,913,897.31
Total Bonded Debt .....		\$9,563,897.31
Less Funds in City Treasurer's hands for redemption .....		1,093,334.77
Net Bonded Debt .....		<u>\$8,470,562.54</u>

## Current Liabilities:

Accounts Payable and Accrued Charges .....	\$ 421,722.84	
Corporation of City of Toronto:		
Sinking Fund Instalments accrued .....	22,877.61	
Serial Debenture Instalments accrued .....	42,987.02	
Total Current Liabilities .....		487,587.47

## Reserves:

For Sinking Fund Equity in Hydro-Electric Power		
Commission System Accounts .....	\$ 188,243.53	
For Depreciation of General Assets .....	1,953,809.36	
For Depreciation of Leasehold Property .....	35,180.23	
For Workmen's Compensation and Public Liability....	105,589.93	
For New Premises .....	100,000.00	
For Contingencies .....	92,538.37	
For Sinking Fund .....	1,093,334.77	
By Redemption of Serial Debentures .....	211,102.69	
For Exchange on Payment of Debentures and Deben-		
ture Interest .....	44,819.01	
From Hydro-Electric Power Commission of Ontario..	129,125.46	3,953,743.35

## Surplus Account:

Balance brought forward from 1919 .....	\$ 101,447.29	
Sundry adjustments during year.....	5,180.67	
Net Income from Operating, 1920 .....	122,727.64	
	<u>\$ 229,355.60</u>	
Less Reserved for New Premises.....	100,000.00	129,355.60
		<u>\$13,041,248.96</u>

## STATEMENT SHOWING THE TRANSACTIONS

Anniversary Date of By-laws	By-law No.	Sinking Funds in Hands of City 31st Dec. 1919	Add Interest Earned in 1920 at 3%	Add Instalment of Sinking Funds paid over to City in 1920
1st July	5036	\$474,145.01	\$14,223.83	\$36,471.54
1st Jany.	5918	304,593.97	9,137.40	34,255.92
1st July	6674	60,953.93	1,828.10	9,283.67
1st Jany.	7176	70,407.70	2,111.72	13,262.38
		\$910,100.61	\$27,301.05	\$93,273.51

## STATEMENT SHOWING THE REDEMPTION OF

By-law No.	Anniversary Dates	Amount Transferred to City for Serial Debenture Redemption to 31st December 1919
7584 and 7642	July 1st	\$67 365.50
7875	July 1st	43,000.00
7999 and 8052	July 1st	19,000.00
8294	Jany. 1st	-----
8295 (Not issued until 1921)	July 1st	\$129,365.50 -----

# Electric System

## OF THE SINKING FUNDS FOR THE YEAR 1920

Add Interest Earned on Instal. in Last Half of 1920 at 3%	Add Increase in Rate of Interest Earned from 3% to 4¾% from 1916 to 1920	Sinking Funds in Hands of City at 31st Dec. 1920	Sinking Funds Accrued to 31st Dec. 1920 provided for in the Accounts but not yet paid over to the City	Total Sinking Funds at 31st Dec. 1920
\$547.07	\$34,684.90	\$560,072.35	\$18,235.77	\$578,308.12
-----	19,590.20	367,577.49	-----	367,577.49
139.21	3,974.69	76,179.64	4,641.84	80,821.48
-----	3,723.49	89,505.29	-----	89,505.29
\$686.28	\$61,973.28	\$1,093,334.77	\$22,877.61	\$1,116,212.38

## SERIAL DEBENTURES FOR THE YEAR 1920

Amount Transferred to City for Serial Debenture Redemption in 1920	Amount Accrued to 31st December 1920 but not yet handed over to the City	Total provided for Serial Debt Redemption to 31st December 1920
\$24,737.19	\$12,987.02	\$105,089.71
23,000.00	12,500.00	78,500.00
20,000.00	10,500.00	49,500.00
14,000.00	-----	14,000.00
\$81,737.19	\$35,987.02	\$247,089.71
-----	-----	7,000.00
		\$254,089.71



WEST TORONTO STATION 1914



WEST TORONTO STATION 1918



WEST TORONTO STATION 1921



226-8 Yonge Street,  
Toronto, July 28 1921.

## General Manager's Annual Report

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*To the Toronto Electric Commissioners:*

Gentlemen:—

Herewith I beg to report on the operations of the Toronto Hydro-Electric System for the year ended 31st December 1920,—the tenth year of its existence. In spite of the increased wages and other costs, the year's working shows a net surplus of \$122,727.64 after providing for Interest charges on all Capital expended, Sinking Fund to retire all Debentures at maturity, and in addition the full contribution to a Depreciation Fund sufficient to replace all the assets of the System at the end of their useful life.

The progress of the entire year was checked by the condition of power shortage. This was very bad during the winter and early spring, due to ice trouble and manifested itself in even more acute form during the months of October and November. In spite of these adverse conditions and the fact that new services were only connected in cases where hardship would have resulted through refusing to supply, the number of consumers increased by over 7,500, the connected load of the System increased by over 18,500 H.P., and the total energy consumption of the System's consumers was over 34,000,000 kilowatt hours in excess of the consumption in 1919.

### **General Extensions**

The increase in load made necessary a number of extensions during the year. An addition to the sub-station at the corner of Edwin and Ruskin Avenues, which serves the West Toronto district, was commenced during the year. A new transformer house has also been erected on St. Clair Avenue a short distance west of Weston Road, to take care of the power requirements of the district immediately surrounding it, and relieve to some extent the load on the sub-station at Edwin and Ruskin Avenues. At December 31st the building was completed and work was under way installing the electrical equipment. A new transformer house equipment was installed and put into service on the premises of one of the System's largest consumers, which will also relieve the Edwin and Ruskin Avenues station.



At the sub-stations serving other districts of the City additional transformer capacity has also been installed as follows:—

Strachan Avenue Station .....	1,500 kilowatts
Carlaw and Gerrard Station .....	3,000     “
Macpherson Avenue Station .....	3,000     “

The additional transformers at Macpherson Avenue Station had to be installed out of doors through lack of space inside the building. Plans are at present under way for a large addition to this building, which will extend eastward along Macpherson Avenue.

From a technical point of view, one of the most interesting features of the year's work is the installation of an automatic sub-station at the corner of Ossington and Benson Avenues for additional service to the Civic Car Lines on St. Clair Avenue. This station contains rotary converters, which transform the alternating current of the distribution system which supplies the station into direct current, which is fed into the trolley lines of the Civic Railway on St. Clair Avenue. The machines start automatically when the current is required and stop when it is no longer required, the only supervision necessary being provided by periodical visits of inspection. The design of stations of this nature is a development of recent years, and it is most important in view of the saving in labor thereby effected.

In addition to increasing the sub-station transformers capacity, eight commercial feeder circuits have been installed throughout the City and over 8,000 kilowatts capacity of pole type transformers have been erected.

### **Street Lighting Improvements**

While the number of street lights installed during the year was small, a noteworthy step in the direction of improving street lighting was taken in the installation of 300 watt gas filled lamps on St. Clair and Danforth Avenues. Owing to the higher efficiency of gas filled lamps the light obtained from the new lamps is much more than three times that obtained from the 100 watt tungsten lamps which were replaced. There is perhaps no other feature of any important city street that can be improved so greatly at a small cost as the street lighting, and the tendency, already apparent, to demand a higher degree of illumination on the streets will doubtless be more marked as time passes.

### **Appliance Department**

A further gratifying increase in the sales of the Appliance Department is shown for the year, although the power shortage prevented the System from pushing the sale of heavier current consuming devices. The total sales for the year show an increase of over 50 per cent. over the sales of the preceding year. The increasing public interest in elec-

tric appliances, and the realization that they have become a feature of every day life is indicated by the fact that at the Exhibition there was for the first time, in the year 1920, a building devoted exclusively to the display of electric appliances and apparatus.

**Curves**

The usual curves are appended hereto, but call for no special comment.

It is with a great deal of pleasure that I again record sincere appreciation of the valuable services rendered by the Staff, to whose efforts, combined with the splendid support of the Consumers and the Public, is largely due the measure of success attained in the past. Our thanks are also due to those officials of the City who have so heartily co-operated with the System.

H. H. COUZENS,  
*General Manager.*

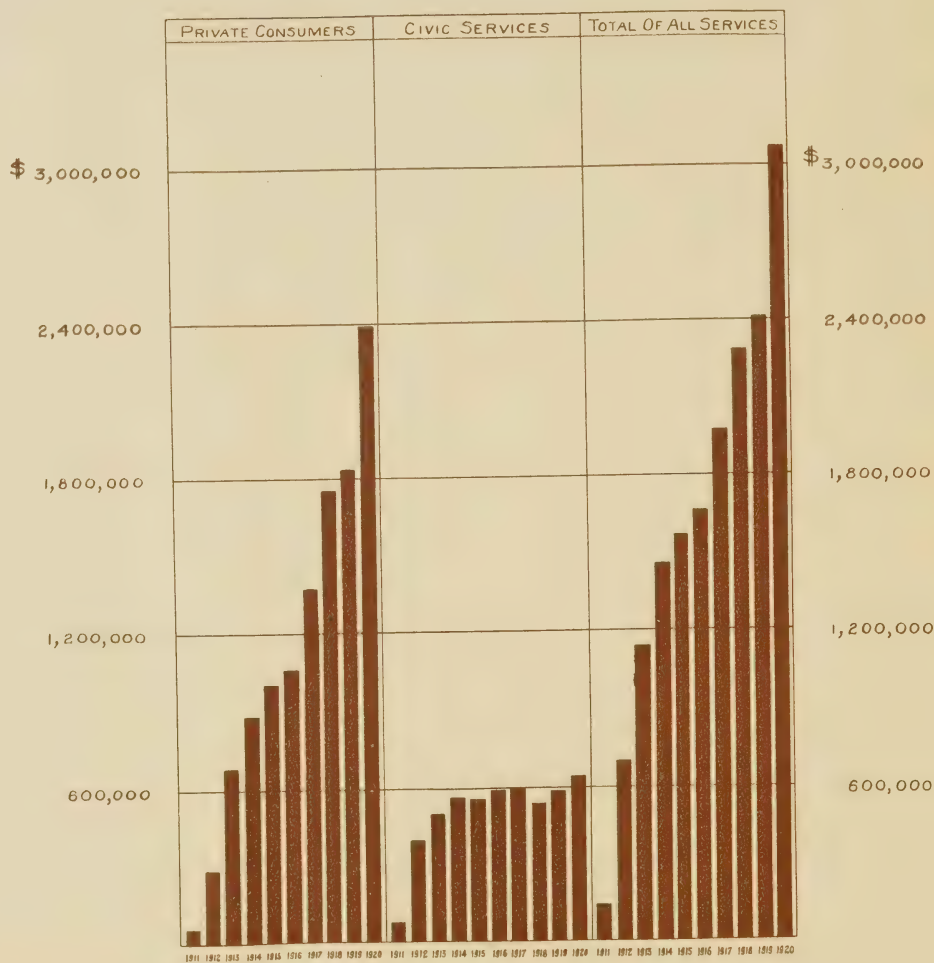
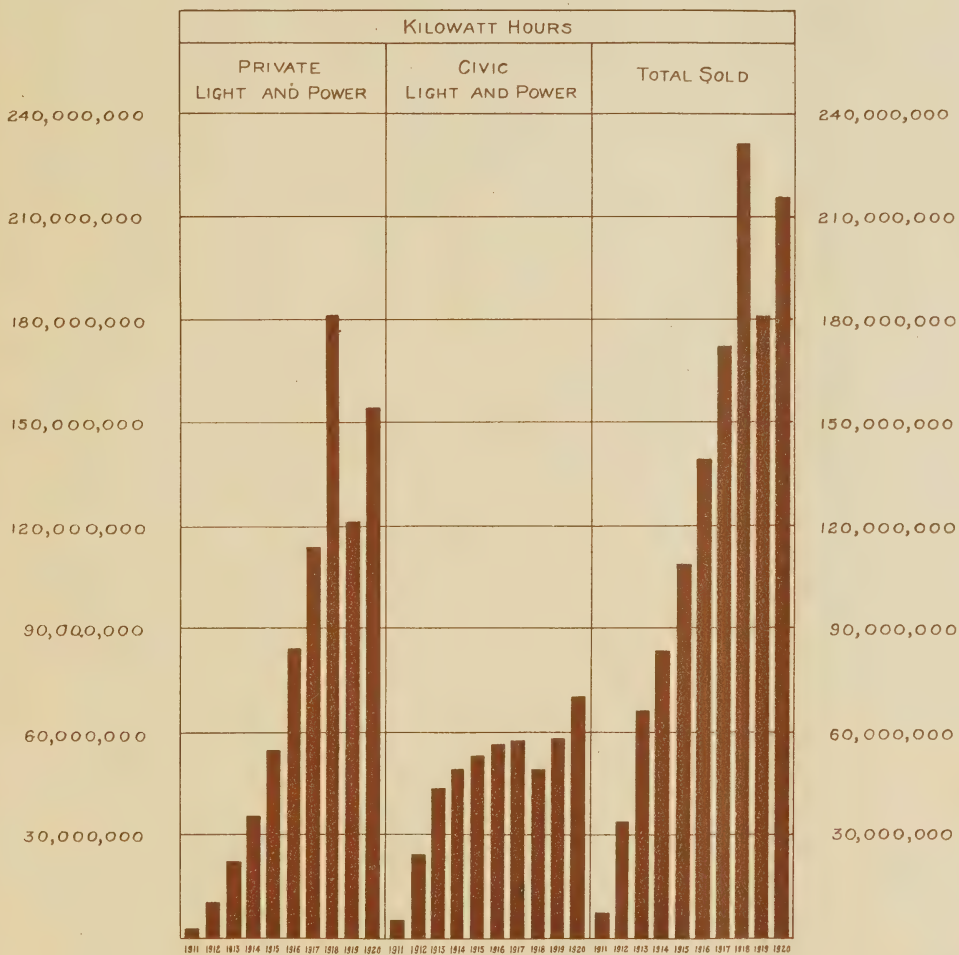


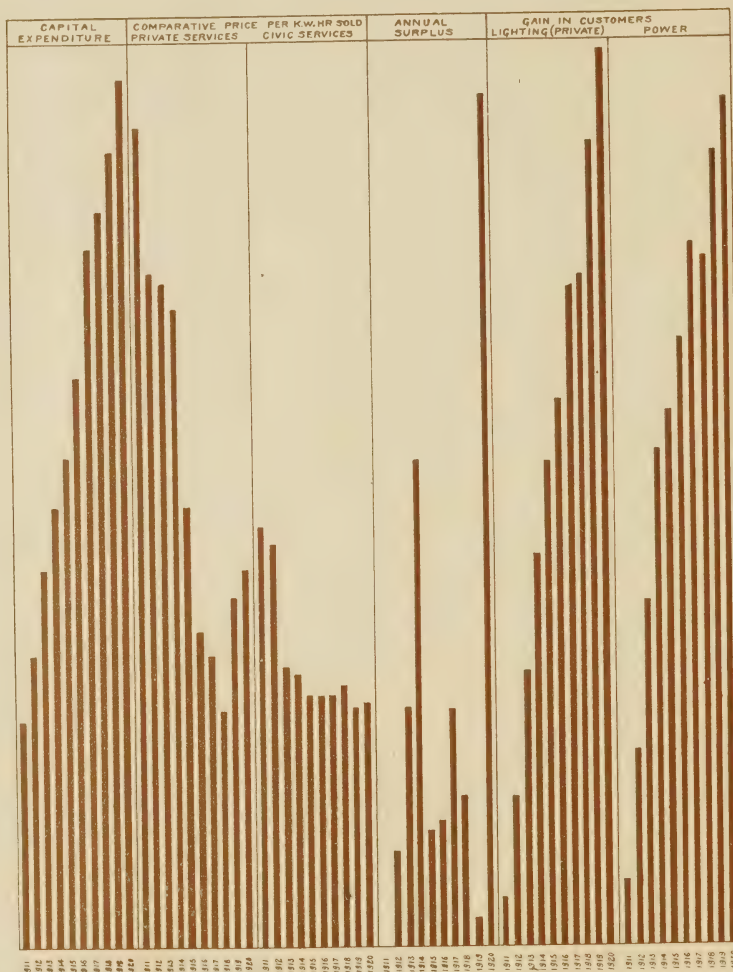
DIAGRAM SHOWING THE COMPARATIVE GROWTH OF THE REVENUE  
OBTAINED FROM THE DIFFERENT CLASSES OF  
SERVICE YEAR BY YEAR

TORONTO HYDRO-ELECTRIC SYSTEM  
1920 REPORT



SALE OF ELECTRICAL ENERGY

TORONTO HYDRO-ELECTRIC SYSTEM  
1920 REPORT



CAPITAL EXPENDITURE , REVENUE ( PER K W. HR. SOLD )  
SURPLUS AND GAIN IN CUSTOMERS YEAR BY YEAR

TORONTO HYDRO-ELECTRIC SYSTEM  
1920 REPORT



GROWTH OF BUSINESS YEAR BY YEAR FOR VARIOUS  
CLASSES OF SERVICE

TORONTO HYDRO-ELECTRIC SYSTEM  
1920 REPORT























